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THE PROCESSING OF CHILDREN'S PERSONAL DATA IN THE GAMES APPLICATIONS AVAILABLE ON THE GOOGLE PLAY STORE PLATFORM

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Abstract: New technologies allow the intense capture and processing of personal data, a worrying practice especially when users are children and adolescents. In this context of great interconnection, this article aims to analyze the protection of children's personal data in children's game applications, available on the Google Play Store Platform, an analysis that aimed to verify whether developers are following what determines Law 13.709/2018. The research aimed to answer the question: did the companies that develop games aimed at children available on the Google Play Store Platform comply with the General Data Protection Law? The answer to the research problem resulted from the application of the deductive method of approach, combined with a case study, focusing on the Google Play Store Platform. It was concluded that technology can be a great ally in teaching children and, despite the risks arising from its use, the inclusion of devices in the LGPD proved to be an important initiative, evidencing the concern with the protection of personal data. It is necessary to go beyond the normative analysis and the investigation of the game applications showed that among all the applications examined, only one is not fully adequate to what the LGPD determines regarding the processing of children's personal data.

Keywords: Children; personal data; General Data Protection Law; Games apps.

INTRODUCTION

Expressions such as the fourth industrial revolution, knowledge society, information age, network society, among many, have been commonly used to express the current moment, in which technology is present in the most varied places, with uses and applications that are both diverse and growing.

The use of Information and Communication Technologies (ICT), which was already widespread, has gained new momentum in recent years and is advancing, especially on the part of children and adolescents, who use smartphones, computers, tablets and other technological devices from an early age.

It is not ignored that its use serves as an important pedagogical tool, collaborating positively with early childhood education. Currently, there are many applications, educational platforms and games aimed at this audience, with the potential to assist in psychomotor development, stimulating creativity, autonomy, logical reasoning, among many benefits.

If, on the one hand, there are no further discussions about the advantages of using technologies, on the other hand, one cannot neglect their possible risks, especially those arising from the exposure and exploitation of personal data, considered an important input for companies and an object of negotiation. The development of technological tools that optimize the collection and processing of personal data, the so-called Big Data Phenomenon, ended up revolutionizing the way it is explored, and from them it is possible, even in apparently harmless activities such as a virtual game, to draw a profile and predict their behaviors and decision making. This precision allows companies from various segments, once personal data is accessed, to make profiles that serve for behavioral predictions.

Faced with this unbridled exploitation, there is a fragile and vulnerable side, which are children and adolescents. They do not have sufficient autonomy and discernment, due to their stage of development, to understand what they are authorizing, the types of data provided to companies, nor the possible consequences that their misuse may have on the holder. This immaturity and perhaps naivety, typical of age, can be added to other feelings, such as excitement in having access to

a world of possibilities and laser represented by the possibilities of interaction opened by games.

The legal treatment of children and adolescents from the framework of their full protection, although pioneered by Brazil through Law No. shortcomings in the face of the growing use of technologies, especially the internet. It was therefore necessary that, together with the preventive measures already provided for in the Statute, specific legislation for the internet also contemplated these subjects. This gap was not remedied with Law nº 12,465, of 2014 – Brazilian Civil Rights Framework for the Internet (MCI), which ignored the vulnerabilities of this age group, a fact partially corrected with the enactment of Law nº 13,709, of 2018 – General Law for the Protection of Personal Data (LGPD).

It is known, however, that the adequacy of reality to what is prescribed by law does not keep the necessary harmony, which can be worrying especially when it comes to electronic games, which is why it was questioned: the companies that develop games aimed at children found on the Google Play Store platform adequate to what is determined by the General Data Protection Law regarding the processing of children's personal data?

To answer this question, selected and analyzed games aimed at children accessed on mobile devices found on the Google Play Store platform, with the aim of verifying whether the developers are following what determines the LGPD regarding the treatment of children's data. Therefore, the investigative work adopted thedeductive method of approach, based on the analysis of the current doctrine and legislation regarding the protection of personal data protection in Brazil, to which was added the case study procedure method, used to conduct the examination of game applications aimed at children found on the Google Play Store platform.

With this methodological contribution, the article was divided into three parts: in the first part, an approach will be made to information technology in the daily lives of children; the second discusses the doctrine and current legislation that protect the rights of children and their personal data and finally an investigation will be made of applications and games aimed at children found on the Google Play Store platform to see if they are in accordance with the which stipulates the General Data Protection Law regarding the processing of personal data of children.

AS TECHNOLOGIES INFORMATION AND COMMUNICATION IN CHILDREN'S DAILY LIFE: BENEFITS AND RISKS

Society is in a process of constant evolution, which historically is evidenced by the industrial revolutions that occurred over the centuries and impacted the way of life and production on a global scale. There have been numerous transformations that have taken place in recent centuries, since the First Industrial Revolution, which took place between 1760 and 1840, whose great legacy was mechanical production; passing through the Second Industrial Revolution, between the end of the 19th century and the beginning of the 20th century, which resulted in large-scale production; the third Industrial Revolution, which began around 1960 and introduced computing, to the current stage, characterized as the fourth Industrial Revolution, located temporarily at the turn of the 20th century to the 21st century. This revolution, much faster and far-reaching,

As Castells and Cardoso elucidate (CASTELO; CARDOSO, 2005, p. 17), the structural changes that have been taking place worldwide in recent decades are largely due to technological improvements that

give new modeling to social, economic and political interactions, which begin to operate in networks, making them distinct from the periods that preceded them.

Its conformation and the countless options for interaction in digital environments, which are increasingly dynamic and attractive, arouse the interest of users of all ages, with emphasis, in this work, on children and adolescents. These subjects make extensive use of technologies, as demonstrated by ICT Kids Online Brasil, a survey published in November 2022, noting that "The proportion of children and adolescents aged 9 to 17 who are Internet users in the country has grown (93% in 2021, compared to 89% in 2019)". The survey also revealed that "there was a significant growth in the proportion of network users aged 9 to 10 years (92% in 2021, compared to 79% in 2019)" which, according to the report, shows an unprecedented achievement since the research is carried out: there is a greater balance between users who are children and those who are adolescents (NIC.Br, 2022, p. 3).

The intense use of ICT provides these Internet users with a range of interpersonal interactions through social networks, access to entertainment platforms, electronic games, search for educational content on the Web and, more recently, classes on online platforms, which has accelerated due to the pandemic and post-pandemic period, which imposed a rapid review of traditional pedagogical strategies.

For Tajra (2019, position 4409) this change caused by the technological revolution imposes a new look at the future of education, since the old teaching techniques no longer fit the dynamic profile of digital natives. It is necessary to think of new ways and methods of educating, which is why it is essential that everyone involved directly or indirectly with education understand that this generation demands a new model of learning, as it is "[...] always connected, does not have the patience to study following the traditional way, finding it difficult to keep up with linear learning [...]" (TAJRA, 2019, position 4409).

Technology can be a great ally, serving as an instrument to assist in the educational process, which includes the use of digital games as learning strategies. In a work published by Cani et al (2017), called "Analysis of digital games on mobile devices for learning foreign languages", the authors carried out a study on the functionality of three applications aimed at teaching English, found on the Google platform Play. The study found that although these applications had limitations regarding some aspects of the teaching method, they could be considered good tools for use in the classroom. They highlighted that the adequate and well-planned use of these technological resources can serve to "[...] new literacy possibilities and contribute to the participation of students [...

Another study on the potential of games was carried out by Pinheiro, Lima and Araújo (2020) entitled "Digital games as motivation for the development of reading". In it, the authors carried out an investigation with students in the 1st year of high school at a public school in order to verify their perceptions about the use of digital educational games in the development of reading and, if so, how this learning took place. The study showed that the use of technology to encourage reading had a favorable result, students showed motivation and interest, contributing to the development of skills. Besides, in the words of the authors

> We emphasized that, when obtaining positive results, in our research, through the application of digital games, we believe that the school will not be able to dodge the technological advances that are made available to them, but, on the contrary, it must provide the faculty and students with possibilities to take advantage of

> these tools and leverage other means of learning, in addition to those we have already encountered. (PINHEIRO; LIMA; ARAÚJO, 2020, p. 197)

Allied to the positive results, however, it is necessary to adopt preventive and educational measures for its use, because without proper guidance from parents or guardians, some games can have negative consequences for children due to their content or interaction with other players. At first, one can discuss the risk linked to the type of content they are being exposed to when they access a certain social network or entertainment platform, such as YouTube, which hosts challenge games in its environment. In this wake, Miranda and Miranda (2021) discuss the risks that arise from a new type of entertainment called "YouTube challenges"[1].

The authors call attention to the reproduction of these challenges by children and adolescents in their homes, which may imply health risks due to the nature of the activity, since they are usually experienced without the proper supervision of parents or guardians. They also show that this type of content is aimed at spectacularization, originating the "spectacle risk", and that participants act motivated by recognition and even financial gain. In other cases, they are stimulated by the feeling of challenge and pleasure and adrenaline, identical feelings to those who seek the risk-pleasure provided by extreme sports (MIRANDA; MIRANDA, 2021, p. 146 to 151).

In addition to the risks to physical and mental integrity, there is also the vulnerability of children's personal data when they use technologies to interact in different digital environments, since, together with ICT, the Big Date phenomenon appears, which has revolutionized the way of collecting, treating and store data, being able to map user trends. For Doneda (2020, position 3677), computerization brought improvement in the processing of personal data, both quantitatively "[...] based on "brute force", on the power to process more data in less time [...]", and qualitatively in the "[...] application of sophisticated techniques to this processing in order to obtain more valuable results [...]". This qualitative change allowed the use of sophisticated algorithms and techniques for the processing of personal data.

> This technique, known as profiling, can be applied to individuals as well as extended to groups. With this issue, personal data are processed with the aid of statistical methods and artificial intelligence techniques, in order to obtain "metadata", which would consist of a summary of habits, personal preferences and other records of the person's life. The result can be used to draw a picture of the trends of future decisions, behaviors and destiny of a person or group (DONEDA, 2020, position 3688).

It is necessary to understand the importance of protecting children's personal data against increasingly advanced capture and processing mechanisms, as these data "[...] are records of our social activities, our personality and our intimacy, that is, personal data are records that identify us and that reflect what we are [...]" (COSTA; DE OLIVEIRA, 2019, p. 27).

What apparently may seem like a harmless game application for computer, mobile device or website, in reality can hide great risks related to the capture of personal data of its users, forming and making available to everyone the digital identity of minor users deity. In addition to digital identity, Palfrey (2011, p. 51-52) highlights something more complex, it is what it calls a "digital dossier", consisting of a set of information about an individual that can be associated with him,

1 According to the work of the authors, this modality analyzed is present on the Youtube platform and consists of a series of challenges imposed by Internet users to be carried out by channel owners on that platform, bringing the example of the "youtuber" Everson Zoio and the "anthill challenge" (MIRANDA; MIRANDA, 2021, p. 141 to 146).

but that are not always accessible or disclosed to third parties. The set of captured data only increases over time and for digital natives it is even worse, considering the technological context to which they are exposed, their dossier can start to be created even before their birth. As explained by Palfrey (2011, p. 53), "Unlike previous generations, those born digital will grow up having a large number of digital files held over them, whether they like it or not, right from the start. These files come to make up key parts of your dossier as they grow."

In the case of children, greater care is needed, not only by parents or legal guardians but by society as a whole, especially companies and the State itself, all equally responsible for the full protection of their rights, as evidenced in art. 227 of the Federal Constitution of 1988. This protection needs to be reinforced, seeing that these users do not have enough discernment to understand the complexity of interactions in the digital environment, whether due to exposure to age-inappropriate content, or due to exposure to the lucrative market, driven by capture of personal data, to the taste of what Shoshana Zuboff (2020, p. 75) calls "surveillance capitalism", which constitutes "a new form of informational capitalism that aims to predict and modify human behavior as a way to produce revenue and market control".

Driven by technologies, the ability of these companies to collect and analyze personal data has expanded exponentially, which allows profiling users so that they receive an even greater load of product and service offers, while also conditioning behavior from the use of techniques that are practically invisible to the data subject.

The companies in the segment, led by the Google Company, inaugurated a totally new way of acting, in an unprecedented movement and, according to Zuboff (2020, p. 23), "what has no precedent is necessarily unrecognizable", which makes the condition of children and adolescents even more vulnerable. Therefore, either because of their special condition, because "[...] they have personality attributes of people who are in the formation and development phase of their adult human potential, unlike the personality attributes of adults, who are in fullness of its forces [..]" (SENA, 2019, p. 13), or in the face of new and invisible risks, legal protection needs to be broadened and deepened.

However, there are dilemmas to be faced, since, as diagnosed by Palfrey (2011, p. 51), "the market for information about individuals is developing faster than the social norms that govern the way people protect the data they respect for them", which reveals a true gap between business practices and legal protection. Based on this finding, the next topic will seek to elucidate the normative, doctrinal and jurisprudential efforts aimed at circumventing these problems and providing protection for the personal data of children and adolescents who interact in the digital environment.

PROTECTION OF CHILDREN'S PERSONAL DATA IN BRAZIL

As it was seen in the previous topic, with the advent of the technological revolution, a new model of economic exploitation emerged based on the capture and processing of personal data, which imposed the need for the elaboration of more effective laws to prevent damage or mitigate the problems arising from its treatment. Such a measure is justified because, in an increasingly surveilled society, "[...] data protection is an expression of personal freedom and dignity and, as such, it must not be tolerated that data is used in order to transform a individual into an object under constant surveillance [...]" (RODOTÀ, 2008, p. 19).

In Brazil, treatment Data protection only gained the protection of a specific rule from the enactment of the LGPD, before that, data protection occurred from the interpretation of the Federal Constitution (CF) of 1988 and infraconstitutional laws. In the constitutional scope, there have been recent advances arising from Constitutional Amendment nº 115 of 2022, which recognized personal data as an autonomous fundamental right, integrating them to the list of article 5, itemLXXIX[2].

Constitutional protection, before this modification, was based on the interpretation of Article 5 X and XII, which deals with the inviolability of intimacy and private life, as well as the protection of correspondence and telephone communications.[3]. Another constitutional device used for protection is habeas data contained in article 5, LXXII, which ensures knowledge and rectification of information and data contained in databases of governmental or public entities (FRAZÃO; TEPEDINO; OLIVA, 2019, position 1827 a 1841).

In the protection of personal data in an infraconstitutional scope, Law 8078 of 1990 - Consumer Defense Code (CDC) stands out, which already mentioned personal data, although with another purpose, which was the protection of credit. This legislation was enacted in a scenario where there was no specific legislation on the protection of data held by companies. In the words of Doneda (2010, p. 51) the law is "[...] effectively concerned with consumer protection, the CDC inevitably faced the problem represented by the abusive use of information about consumers in databases [...]". In its article 43, the CDC deals with "Databases and Consumer Registration", imposing limits on the use of consumer data, in addition to allowing them to have access to the stored content, which must be available to the consumer in an accessible, objective, clear and easy-to-understand manner. Thus, it is clear that the law "[...] leads to the consumer being able to self-determine their personal information [...]" (BIONI, 2020, position 4013).

In this normative evolution, Law 12.965/2014, known as Marco Civil da Internet, deserves mention for being an important step by the legislator towards regulating the use of the internet in Brazil, as the law "inaugurated specific regulations for the rights and guarantees of the citizen in relationships on the internet" (BIONI, 2020, p. 123). Article 3 expresses important principles that govern the use of the internet in the country, among them the protection of privacy, personal data, as well as the guarantee of freedom of expression (BRASIL, 2014). In article 7, there is a list of rights that are guaranteed to users, among them the inviolability of private life; the secrecy of the flow of communications over the Internet, and the secrecy of the stored private communication and from article 10 the law makes reference to personal data when regulating the records made by providers. The interpretation and application of these devices guided, in that historical period, the protection of personal data on the internet (BRASIL, 2014).

In general, the protection of personal data was carried out based on the reading of the general clause on personality, the right to privacy and the secrecy of communications contained in the Magna Carta, integrating this constitutional interpretation with the

2 LXXIX - the right to protection of personal data is ensured, under the terms of the law, including in digital media

3 In a succinct presentation of the normative evolution of the subject, it is important to highlight the Direct Action of Unconstitutionality (ADI) nº. 6.387#, judged by the Federal Supreme Court (STF) and which brought as an argument the violation of article 5, X and XII of the CF, taking a great step towards safeguarding personal data from the perspective of fundamental right. Thus, it is considered that "[...] the decision issued by the Federal Supreme Court inaugurated a new paradigm with regard to data protection in the Brazilian legal system, now with the level of fundamental right [...]" (HERMES ; SUTEL; SILVA, 2021, p. 45).

provisions provided for in sparse legislation. It turns out that this protection was not enough given the complexity of the current scenario, which required Brazil to enact Law No. 13,709, of 2018, known as the General Data Protection Law. This legislation inaugurated, in Brazil, a new phase in the protection of personal data, providing for "principles, rights and obligations related to the use of one of the most valuable assets of the digital society, which are the database related to people" (PINHEIRO, 2020, p. 15).

In Article 1, the LGPD already makes it clear that the processing of data aims to "protect the fundamental rights of freedom and privacy and the free development of the personality of the natural person" (BRASIL, 2018). The processing of personal data, therefore, must not cause negative damage to the existential condition of the holder and "is intended to protect fundamental rights such as privacy, intimacy, honor, image rights and dignity" (PINHEIRO, 2020, p.70). In addition, data processing must observe certain grounds provided for in article 2 of the LGPD, such as: respect for privacy; valorization of informative self-determination; inviolability of privacy; respect for human rights and the free development of the personality, dignity and the exercise of citizenship by the natural person (BRASIL,

It is observed that the General Personal Data Protection Law (LGPD)evidences the concern with the fundamental rights based on the Magna Carta, which establishes a constitutional anchorage to the law that, throughout its text, also evidences the reference to other infraconstitutional norms, seeing that the LGPD provides guarantees that "[...] dialogue with the relevant constitutional principles and fundamental rights, as well as with the protection that both the Civil Code and the Consumer Defense Code provide to the existential situations of users [...]" (FRAZÃO; TEPEDINO; OLIVA, 2019, heading 3220).

Another connection with the special legislation, which already exists, occurs in article 14, when providing for the personal data of children and adolescents, it is evident that the treatment must be carried out in the best interest of the child and adolescent, in line with the specific protective legislation. It is clear that protection is not limited to the terms of article 14, it must also be seen in the light of the Federal Constitution, the Statute of the Child and Adolescent and also the Convention on the Rights of the Child (FRAZÃO; TEPEDINO; OLIVA, 2019, position 8854).

One of the points of attention is centered on the definition of the meaning and scope of the expression "the best interest of the child", since its semantic opening allows a lot of freedom to the interpreter. According to the provisions of General Comment No. 14, of the Commission on the Rights of Children and Adolescents of the United Nations (UN), actions must always be consistent with the provisions of the Convention on the Rights of the Child, whose article 3. º, paragraph 1, "gives children the right to have their best interests evaluated and taken into account in a primatial manner in all actions or decisions concerning them, both in the public and private sphere" (ORGANIZAÇÃO, 2013, p. 9).

The best interest of the child, then, has a threefold nature, namely:

> (a) A substantive right: the right of children to have their best interests evaluated and constitute a primary consideration when different interests are under consideration, as well as the guarantee that this right will be applied whenever a decision has to be taken that affect a child, a group of children or children in general. Article 3, paragraph 1, establishes an intrinsic obligation for States, is directly enforceable (self-enforcing)

> and can be invoked before a court. (b) A fundamentally interpretive legal principle: if a legal provision is open to more than one interpretation, the interpretation that actually best satisfies the best interests of the child must be chosen. The rights enshrined in the Convention and its Optional Protocols provide the framework for interpretation. (c) A procedural rule: whenever a decision is made that affects a particular child, a group of children or children in general, the decision-making process must include an assessment of the possible impact (positive or negative) of the decision on the child or children involved. The evaluation and determination of the child's best interests require procedural safeguards. Furthermore, the grounds for a decision must indicate which right was explicitly taken into account. In this regard, States parties must explain how the right was respected in the decision, ie what was considered to be in the best interests of the child; what criteria the decision is based on; and how the best interests of the child were weighed against other considerations, be they general policy issues or individual cases. (ORGANIZATION, 2013, p. 10)

It is clear, therefore, that the provisions of art. 14 of the LGPD must be interpreted in line with the constitutional provisions regarding full protection, provided for in art. 227 of the Federal Constitution, according to which responsibility for care and promotion of rights is shared between family, society and the State. This full protection must occur without disregarding the international commitments signed by Brazil, such as those resulting from the 1989 Convention on the Rights of the Child.

Article 14, § 1 of the LGPD requires specific consent from at least one of the parents or legal guardians for the processing of children's data. It must be noted that the legislator only used the term "child", defined in the Statute as a person up to 12 years of age, not referring to "adolescent", thus considered as someone between 12 and 18 years old. In a stricter and positivist interpretation, it can be understood that consent for treatment is required only when dealing with personal data of children (YANDRA; SILVA; SANTOS, 2020, p. 234). However, it is necessary to observe the progressive autonomy, remembering that full protection is due to all minors under 18 and must be adjusted and freedoms will be expanded to the extent that the adolescent begins to demonstrate more discernment.

Controllers must keep public information about the types of data collected, how they are used, and it is up to them to make the necessary efforts to verify that this consent was actually given by the legal guardian (BRASIL, 2020). On this last point, Pinheiro (2020, p. 95) warns that care for obtaining parental consent is necessary because "[...] the digital environment enables numerous means of circumventing identification procedures; therefore, it is up to the controllers to ensure that the consent is real and valid".

Controllers must not condition access to games, internet applications or any other activity, to the provision of personal data beyond what is really necessary, as stipulated in 14, § 4 of the LGPD. According to Frazão, Tepedino and Oliva (2019, position 8937) "the device honors the principle of data minimization, according to which data must be adequate, relevant and limited to what is necessary in relation to the purposes for which they will be processed".

Knowledge about the processing of your data and the possibility of informative self-determination are also honored by the LGPD, which extends to children and adolescents. In honor of this self-determination, the law provides that information on data processing must be available in an accessible and understandable manner, and must "[...] even be adapted to the understanding capacity of children and adolescents, subjects protected by the doctrine of self-determination. full protection and which have a peculiar

condition, as they are under development [...]" (FRAZÃO; TEPEDINO; OLIVA, 2019, position 8947).

All these precautions and resources, including audiovisual ones, can be used so that controllers can surround themselves with guarantees about the consent of parents or guardians, which also consists of measures for the integral protection of children and adolescents. The so-called Full Protection Doctrine is the result of a historical evolution that culminated in a legal model that was implemented in Brazil with the advent of the Federal Constitution of 1988, providing for a series of fundamental rights and guarantees, later deepened and expanded with Law nº 8.069 of 1990, called the Child and Adolescent Statute. The Doctrine of Integral Protection "[...] consists of a set of constitutional principles that aim to safeguard individual and fundamental rights of children and adolescents [...]". (CRISPIM; VERONESE, 2020, p. 36)

Art. 227 of the Federal Constitution, inspired by the debates held at the time in the international arena during the preparation of the Convention on the Rights of the Child (1989), makes the family, society and the State responsible for the prevention, promotion and protection of these subjects of rights. It recognizes to them the fundamental rights foreseen in the Constitutional Charter, in addition to others, inherent to their condition of development. At this point Machado teaches:

> Therefore, the 1988 Constitution created a special system to protect the fundamental rights of children and adolescents. This special system is clearly inspired by the so-called doctrine of Integral Protection, whose conception I sought to outline in Chapter 2, and it crystallizes in the Federal Constitution, especially in articles 227 and 228, but also in the provisions contained in articles 226, caput, and §§ 3, 4th, 5th and 8th and 229, first part (MACHADO, 2003, p. 108).

To support the new paradigm inaugurated by the Federal Constitution, the Statute provides that every Child and Adolescent has the right to Freedom, Respect and Dignity, a true triad on which this new branch of Law will be built. Article 15 confirms this more in-depth protection, which leads authors such as Machado (2003, p. 119) to state that "children and adolescents deserve, and received, from the Brazilian legal system this more comprehensive and effective treatment because, due to their status as human beings, different from adults, adds to their greater vulnerability in relation to adult human beings."

Among the special rights is the right to be a child, which is expressed in the freedom to "play, practice sports and have fun" (BRASIL, 1990). It is essential that the legal provision brings the child's right to play, as playfulness and fun are essential for their full physical and psychological development, as "[..] they stimulate the creative spirit and creative fantasies of children and adolescents and give vent to their dynamic restlessness, which employ their attention in something healthy, rather than in situations that are harmful to their development [..]" (CURY et al 2002, p. 70).

The act of playing, however, needs to be appropriate to the level of development and must not pose risks to infants, especially in the early years of their lives. To this purpose, it is imperative that those responsible for full protection allocate attention and care, as Cury et al (2002, p. 70) They point out,

> It is not enough, of course, to recognize the freedom to play, to practice sports and to have fun. It is necessary to offer means that provide all children and adolescents in general with the full exercise of this freedom, so that the right to culture, leisure, sports, entertainment, shows, provided for

in art. 71.

The promotion of rights and integral protection require an articulated understanding, in which the indivisibility of the rights of children and adolescents is recognized, which must be considered in the light of the triad of freedom, respect (Art. 17) and dignity. (Art. 18). The protection provided by the aforementioned articles is of great importance, since they are addressed to people in development. Such predictions are very important when associated with the protection of the privacy and personal data of these subjects, because according to Wolff (2021, p. 370), "[...] it also appears that dignity and freedom have always been associated with theprivacy, being ethical content and expression thereof, such rights being - privacy, freedom, dignity, respect [...]".

The theme of protection and respect for the dignity of children and adolescents, wherever they operate, has also been of concern to the United Nations (UN), especially when this interaction takes place in the digital environment. To this end, it issued General Comment No. 25 (2021) on Children's Rights in relation to the digital environment.

In a general summary, the Commentary aims to guide the States parties on how they should proceed with the implementation of the conventions and protocols that deal with digital environments, as well as regarding legislative and political measures to safeguard children and adolescents from the risks that may arise from this interaction. The general principles brought by General Comment No. 25 are highlighted, namely: a) Non-discrimination, b) Best interests of the child, c) Right to life, survival and development, d) respect for the opinion of the child (UN, 2021).

In addition to trying to minimize the problems arising from the use of technology through normative means, it is important to adopt other strategies, such as prevention through awareness and awareness. Veronese (2017, p. 649) teaches about the great importance of informing citizens about their rights and guarantees, as well as investing in education to raise awareness about the risks that the digital environment provides. The author also points out that it is "[...] the duty of the State and the commitment of all (family, school, society) to ensure the physical and psychological integrity of its citizens, especially children and adolescents [...]" (VERONESE, 2017, p. 649).

As already seen so far, children and adolescents are part of a significant number of Internet users and carry out the most varied interactions online, either through access to social networks, entertainment games, educational games, as well as many other tools, which produces aspects positives and negatives. Among the negative ones is the risk of exposure of personal data, as will be demonstrated in more detail in the next topic, when the terms of use and privacy policy of some applications for children's games will be analyzed. This examination, which is not intended to be exhaustive, expresses the state of the art in the year 2021 and seeks to verify its adequacy to current legislation regarding the processing of personal data of children and adolescents.

INSIDE THE GOOGLE PLAY STORE PLATFORM: ANALYSIS OF GAME APPLICATIONS INTENDED FOR CHILDREN

The present research aims to investigate whether the game applications aimed at children found on the Google Play Store platform are adequate to the provisions of the General Data Protection Law. The privacy policy was analyzed, as well as the application itself when opening it.

The investigation took place on October

13, 2021. 3 (three) apps were chosen in the "Educational" category, and 2 (two) apps in the "Action" category, all selected as "top free apps", with age rating "free" and with an evaluation above 4 (four), with a maximum evaluation of 5 (five).

APP NAME	DEVELOPER	CATEGORY	ASSESSMENT	VERIFICATION DATE
Learn to count educational games for kids	Erudite Plus	Education	4.4/5	10/13/2021
Masha and the Bear. Educational games	Edujoy Entertainment (EDUJOY APPQUIZ)	Education	4.1/5	10/13/2021
banana kong	FDG Entertainment Gmbh & Co.Kg	Action	4.6/5	10/13/2021
Intellecto Kids Didactic Games	Intellect KidsLtd	Education	4.4/5	10/13/2021
Mario Kart Tour	Nintendo CO. Ltd	Action	4.2/5	10/13/2021

Table 1- Analyzed apps and their information

Source:The author

It is important to note that it is only possible to download the game with an account on the Google Play Store Platform[4]. So, it is assumed that the child accesses the application on a parent/guardian's device, which is already registered on the platform, or that the device belongs to the child himself, using a parent/guardian's registration to be able to download the games.

Before entering the heart of the research problem, it is important to show some relevant points that were highlighted. At first, all applications had their own privacy policy on the Google Play Store platform in the Brazilian Portuguese version (pt-BR). It was also found that the following applications are based on the European Union General Data Protection Regulation[5]: Intellecto Kids Educational Games, Learning to count educational games for kids, Masha and the Bear Educational Games, Banana Kong. Now the app. Mário Kart Tour does not provide further information.

Although the applications are legally based on the RGPD, Law 13.709, General Data Protection, applies by virtue of article 3, according to which

> Art. 3 This Law applies to any processing operation carried out by a natural person or legal entity governed by public or private law, regardless of the means, the country of its headquarters or the country where the data are located, provided that:
>
> [...]
>
> II - the purpose of the processing activity is

4 According to GOOGLE terms of use: Age restrictions. To use Google Play, you must have a valid Google Account ("Google Account"), subject to the following age restrictions. If you are considered a minor in your country, you will need permission from a parent or legal guardian to use Google Play and toaccept the Terms. You must comply with any additional age restrictions that apply to your use of specific Content or features on Google Play. [emphasis added], (GOOGLE, 2021).

5 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and the free movement of such data and repealing Directive 95/46/ EC.

> the offer or supply of goods or services or the processing of data of individuals located in the national territory; or
>
> III - the personal data object of the treatment have been collected in the national territory
>
> § 1 Personal data whose holder is in the national territory at the time of collection are considered collected.
>
> [...]

It is noteworthy that, for research purposes, accounts were created (via simulation) for children in just two applications: Mario Kart Tour and Intellecto Kids Didactic Games. The others did not show the possibility to create an account. Mario Kart Tour app required a Nintendo[6] Account to use the game and when clicking to create an account, two options appeared, an account for adults and another for children up to 13 years old, so, based on this possibility, a child account was created.

When creating an account on Intellecto Kids Jogos Didáticos, this application presented a link through the application that directed to the site, and there was the option to create an account, which allowed its effectiveness. In this application there was no option to play without creating an account for the child, or any type of login.

The apps: Learn to Count Educational Games for Kids, Masha and the Bear Educational Games, Banana Kong did not show an option to create an account. The three apps also inform in their privacy policy that they do not intentionally treat children's personal data.Having made the general findings, we now enter the problem of this research, where we sought to verify whether game applications fulfilled the recommended in the LGPD regarding the processing of personal data of children. For such,they were observed the following points: a) the aspect of consent provided for in article 14, §1 and §5 of the LGPD; b) if the applications conditioned the access and participation of children the provision of your personal data beyond what is strictly necessary, see article 14, § 4 of the LGPD; c) caseperform the treatmentchild's personal data, ifto theinformationare presented inclear, objective and easy-to-understand language, as recommended by article 14, paragraph 6, of the LGPD.

The General Law for the Protection of Personal Data, in Article 14 § 1, stipulates that the processing of personal data of children must be carried out with the specific and prominent consent given by at least one of the parents or the legal guardian. 14, § 5º, which determines that the controller must make all reasonable efforts to certify that consent has been given by at least one of the parents or guardians. In this regard, two applications were analyzed: Mario Kart Tour,Intellecto Kids Didactic Games, the only applications that presented the option to open a child account. The others did not present this option, which excluded them from the analysis of this item[7].

Both apps, when trying to create a child account, required an email for verification, to which a verification code was directed. The Mario Kart Tour application sends two verification emails, one before proceeding with filling in the data and another after completion, as validation. To create an account requires information about the parents/legal guardian, such as: name, date of birth, gender, country. The applicationIntellecto Kids Didactic Games only required the parent/

6 Nintendo Account is the account created on the Nintendo game developer website. Without it,it is not possible to play in the application.

7 The other applications were not analyzed in this regard because there is no possibility of registering children's personal data. It should be noted that this is a good thing, since, as the principle of necessity listed in article 6, III of the LGPD advocates, data processing must be limited to the minimum necessary to fulfill the purpose. So the less data exposure, even voluntarily, the better.

legal guardian's e-mail address.

Figures 1 and 2 refer to the e-mail sent for verification when trying to create a child account at Nintendo. The first refers to the first emailsent, which sends a verification code to the email and to proceed it is necessary to type this code in the field shown in the image.

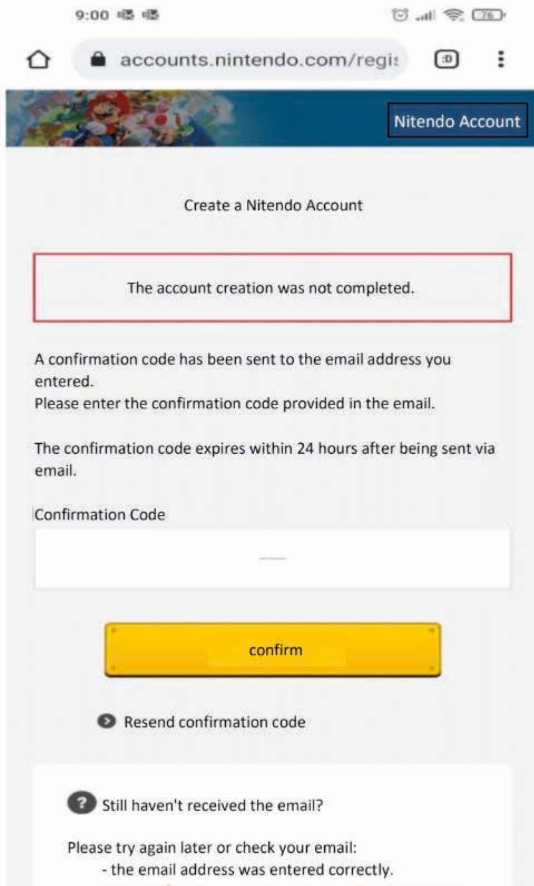

Figure 1– First verification through a code that is sent to the confirmation email, step 01

Source: Nintendo Co website. Ltd

Figure 2 represents the image of the second verification, the email sent provides a link to access the newly created account.

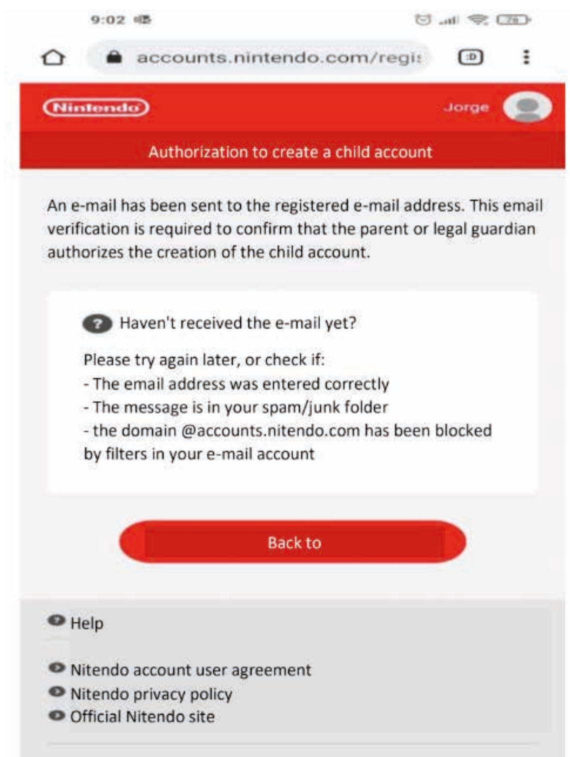

Figure 2– Second verification via a link sent to the confirmation -email, step 02

Source: Nintendo Co website. Ltd

Figure 3 shows the authentication image of the Intellecto Kids Jogos Didáticos application, which consists of a code sent to the informed e-mail, which must be typed in the -.

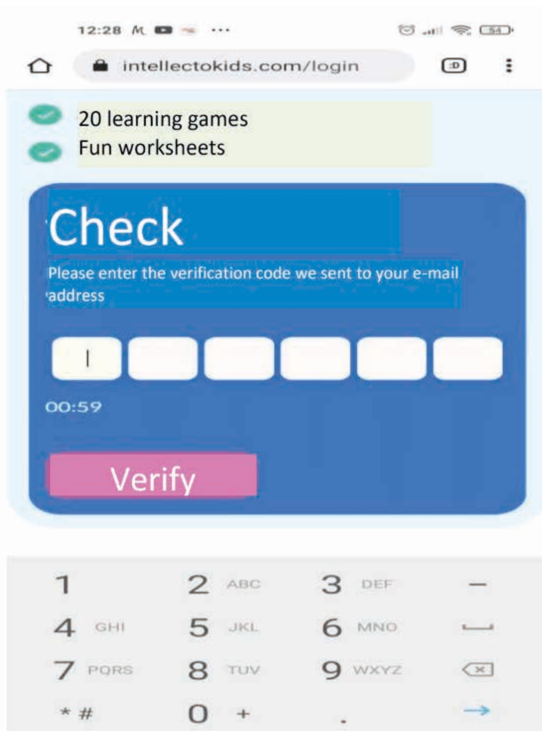

Figure 3– Verification through a code sent to the e-mail to authenticate the Application Intellecto Kids Didactic Games

Source: Website Intellecto Kids Ltda.

The child's data requested by the Mario Kart Tour application for the account are nickname, date of birth, gender. The Intellecto Kids Jogos Didactics application requested name or nickname, date of birth (only month and year) and asked to select one of the avatar options[8].

The General Data Protection Law does not provide further clarification on what the "reasonable efforts" contained in 14, § 5 would consist of. It would be interesting if the legislator had standardized the forms of obtaining consent, so that all companies would conform to a uniform standard, leaving no margins for a form of consent that is not effective. This omission referred the solution to the gap to the action of the National Data Protection Authority (ANPD), which was tasked with providing further clarification on this point of the LGPD, as well expressed by Yandra, Silva and Santos.

> [...] the expectation is that a detailed regulation, regarding this point, may come in some normative act to be edited by the National Data Protection Authority (ANPD). While its existence does not fit together, the LGPD leaves operators with the opportunity to find innovative and adequate solutions (YANDRA; SILVA; SANTOS, 2020, p. 238).

Based on these considerations and what was found, it is assumed that these two applications were in compliance with Article 14, § 5 of the LGPD, as they theoretically adopted a measure to verify parental consent.

It must be remembered that the General Data Protection Law, in its article 14, paragraph 4, determines that the controller must not condition the participation of children in games or other applications to the provision of their personal data and, in order to verify compliance with the legal command an analysis of the privacy policy of the five applications was carried out, as well as the verification, opening each application to check if there was conditioning. It was found that the Mario Kart Tour application required access through the Nintendo account and, when clicking to enter the account, there was the possibility of creating an account for a child or an adult, not necessarily requiring/conditioning data from children. Thus, the underage user could access the application through a parent's account, which would be in compliance with the provisions of the LGPD.

Figure 4 shows the message that appears when trying to play in the application for the first time, which shows the request to create an account.

8 The option to select the illustration that represents the child's physiognomic characteristics appears, such as: skin color, hair color, eye color and gender.

Figure 4– Account request that appears when trying to play for the first time

Source: App Mario Kart Tour/ Nintendo Co., Ltd

The other applications did not require access via an account or any other type of registration. In their privacy policies (Mario Kart Tour also has one) there is an exclusive topic that deals with data from children, in which they claim not to "intentionally" collect and process this type of personal data. All analyzed applications mention that if this occurs, contact the developer to delete the collected data. They reiterate, moreover, that it is the duty of parents to observe the privacy policy. By way of example, below is part of the privacy policy for the Masha and the Bear app.

> 6. Child safety
>
> **Under no circumstances will EDUJOY collect confidential information from children. EDUJOY is not currently collecting any sensitive information from minors and all of its mobile apps include strict parental controls to protect children from accidental purchases or unwanted advertising.**
>
> [..]
>
> We also encourage you to read this privacy policy, as by allowing your children to use our services, you are agreeing to this privacy policy on their behalf. If you disagree, please do not allow your child to use our apps.
>
> **We do not contact or collect information from children under the age of 13 without their parent/guardian's permission. However, if you believe that we have inadvertently collected this information, please contact us to immediately obtain parental/guardian consent or delete the information.** [na emphasis was added in this stretch], (EDUJOY, 2021).

At this point, it is necessary to insert some considerations: first, because it does not matter if the processing of personal data is intentional or not. The parent companies have the expertise and technical means to find out if they are children's personal data, not least because this is the audience that certain types of games are aimed at. Therefore, they must have social responsibility when they act, adjusting their practices to the determinations of the legislation, which not only refers to the adaptation to the LGPD, but also to the Statute of the Child and Adolescent.

Secondly, there is no point in companies trying to evade their responsibility by transferring them to parents, who would have the duty to read the privacy policies. It is known that the documents are extensive, written in unfriendly language, which makes it difficult to understand the scope of data processing, especially in view of the informational vulnerability of parents or guardians. Therefore, it is a consumption relationship and, as such, the condition of vulnerability of the parents must also be

recognized.

An even more invasive situation was found in the analysis of the Intellecto Kids Jogos Didactics application, as it conditioned access to the game to permission to access photos, media and files on the device, access that would precede account creation. Image 5 refers to the permission required to access the device's media.

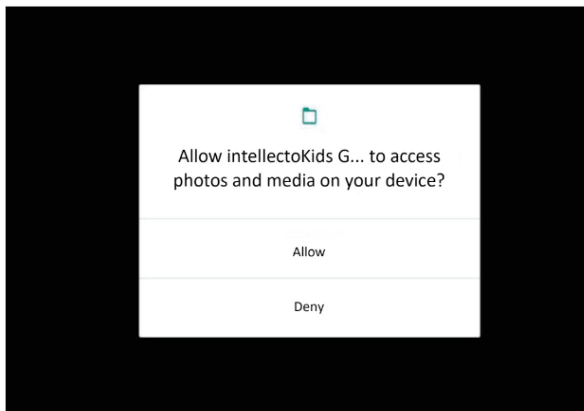

Figure 5 -device media access request

Source: AppIntellect KidsDidactic Games

Image 6 illustrates the error message that appears when denying access to device media

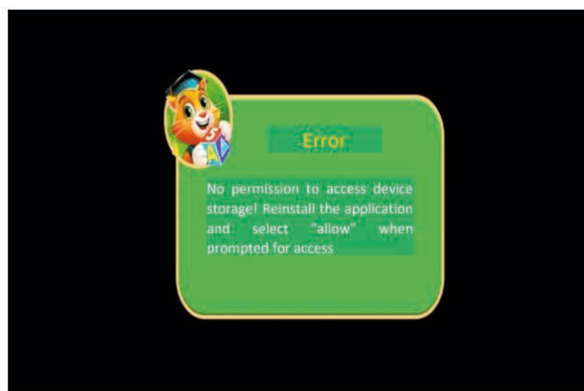

Figure 6– Error message after device media access is denied

Source: AppIntellect KidsDidactic Games

Despite not conditioning access to the provision of personal data such as name, age, identity number, Social Security Number, among others, access to storage may jeopardize personal data such as photos of the child's documents that may be in the gallery, personal photos , among other data.

It was carried out an investigation in relation to the provisions of article 14, paragraph 6, of the LGPD, which requires, in the case of data processing of children, or that this type of data is provided, that the information about the treatment be in clear, objective and transparent language Easy to understand for both children and parents. In this regard, the Mario Kart Tour and Intellecto Kids Jogos Didactics applications were evaluated, as in the other applications there was no possibility of creating an account for a child.

In this regard, it is concluded that both applications comply with the requirement of 14, §6, of the LGPD: they presented the information in Portuguese (pt-BR), arranged in a clear and accessible way, provided information on the purpose of the treatment, security measures to protect the data, inform how to obtain the rectification or deletion of personal data, providing the contacts for this.

Based on the analyzes carried out, it was found that applications such as Learning to count educational games for children, Masha and Urso Jogos Educativos, Banana Kong did not have an option to create an account for children and informed that they did not intentionally treat this type of personal data. In view of this, they were not analyzed in terms of article 14, paragraph 1 and paragraph 5 of the LGPD, nor with regard to the provisions of article 14, paragraph 6. They were analyzed under the aspect of article 14, § 4 of the LGPD, with which they demonstrated to be in compliance.

In the apps Mario Kart Tour and Intellecto Kids Didactic Games it was possible to create an account for children, from there they were analyzed under the aspect of article 14, §1º, §5º, §4º and §6º of the LGPD. The Mario Kart Tour application was in agreement in all

investigated aspects, while the Intellecto Kids Jogos Didactics application did not comply with 14, § 4, as it conditioned access to the platform to the holder's photo gallery.

FINAL CONSIDERATIONS

From aponormative part, the theoretical approach and thes datapresented, were evidencedthe changes occurred by the incorporation ofinformation and communication technologies in children's daily livesand teenagers, beings whoare born and develop incontexts permeated by technology. There ismpositive changes, which broughtnew challenges and strategies favorable to the increase of education, using technology as an ally that contributes toa new learning model suited to the demands of digital natives. On the other hand, new threats arise with emphasis on the exposure to personal data of children and adolescents.

How muchthe protection of personal data, theIt was observed that until the enactment of Law 13,709 of 2018, known as the General Data Protection Law,its guardianship occurred from the hermeneutics and application of the dispositions in theFederal Constitution of 1988,especially by right to privacy, secrecy of information and the right to informational self-determination and infraconstitutional headquarters, the theme was dealt with by sparse laws, highlighting the important role played by Law 8078 of 1990, Consumer Protection Code, which imposed restrictions on theusepersonal data of consumers, in addition to the right of self-determination on the information processed. Law 12,965/2014, known as the Civil Rights Framework for the Internet, wasbigimportance todeal with the subject in the context of the internet, as itprinciples and rights to regulate the useof this technologyin Brazil,with emphasis on theprinciple of data protection.

The normative turn, however, occurred with the edition ofthe General Data Protection Law, which inaugurated a new phase in Brazil regarding the protection of personal data, providing for a series of rights and guarantees to the holders, having its roots in fundamental rights. Above all, the law allocates a special chapter for protection of children's personal dataIt is teenagers, as they are more vulnerable. This is Chapter III, which has Article 14 that provides for how the processing of such personal data must be done. It also became clear that the guardianship of children is not limited to the LGPD, as they must be observed together.yy Lei 8,069 of 1990 - Statute of the Child and Adolescent - the legislation that is anchored in the principle of full protection and that strives for the best interest of the child, already contemplated in international commitments signed by Brazil. The Statute, even though it was innovative at its time and offered the main guiding principles for the protection of children and adolescents, practically does not contemplate the issues that deal with the use of technologies, limiting itself to referring to them in cases of crimes such as child pornography. The protection of personal data is not directly contemplated, which requires the combined analysis of legislation in order to achieve sufficient regulatory protection.

It turns out that the normative framework is not enough if the practices remain far fromof legal provisions and, to verify compliance with regulatory standards, observation and analysis were undertaken in the privacy policies of available applications on the Google Store. By investigation carried out, it is concluded that the only application that does not meet all the requirements is theIntellect KidsDidactic Games, just only one of who promises to fulfill also an educational function.

This app conditioned the interaction of user to the controller to have access to the device's gallery, which may lead to accessing personal

data of children,in total misalignment with the provisions of Art.14, § 4 of the LGPD. The other applications, according to the analyzed points, areavamwith your policies(declared) minimally in accordance with the provisions of the General Data Protection Law. It appearsIt is assumed, however, that companies in the gaming segment have not yet realized that they also have responsibilities as members of the chain of full protection and, in this condition, must propose suitable and sufficient means for the protection of minors. Of course, the protection is not directed only to "confidential data", as mentioned in the EDUJOY policy, as a set of information can lead to the creation of detailed profiles.

Furthermore, companies invoke "strict parental control", as if the parents (mostly) had the technical knowledge to carry out this control, especially considering that it can not be said that what is declared in the terms of use is actually respected. Therefore, based on what was observed in contrast to the terms of UN Comment No. 25, it is concluded that the protection of personal data of children and adolescents who interact in virtual games must be shared by everyone, including companies. To this purpose, the State has to promote clarification and inspection campaigns of what is offered in the market, the companies that operate need to be held accountable in case of non-compliance with the LGPD.

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