

The Socio-Legal Protection of Digital Child against AI applications risks related

الحماية السوسيو قانونية للطفل الرقمي من مخاطر استخدام تطبيقات الذكاء الاصطناعي

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Abstract : Accordingly, the study is concerned with exploring the multidimensional relationship between digital child and AI applications from a socio-legal framework, focusing on the risks that children may encounter through their engagement with such technologies. It also aims to assess the adequacy and effectiveness of existing legal protections for children in the digital environment at both national and international levels, and to explore potential protection mechanisms that emerge from the intersection of legal, social, and technological domains.

Keywords: Socio-legal protection, the digital child, applications of artificial intelligence

ملخص : تهدف الدراسة إلى تحديد أبعاد العلاقة بين الطفل الرقمي وتطبيقات الذكاء الاصطناعي من منظور سوسيو قانوني مع ما يتعرض له الأطفال من مخاطر جراء استخدام تطبيقات الذكاء الاصطناعي، مع قياس مدى فعالية المنظومة القانونية التي تحمي الطفل في البيئة الرقمية على المستويين الوطني والدولي. والبحث عن آليات الحماية التي تقوم على التفاعل بين الجوانب القانونية والاجتماعيين والتقنيين.

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1. Introduction:

The contemporary radical transformation actualized by digital technologies has significantly reshaped human beings lifestyles and philosophy, with artificial intelligence (AI) emerging as a foundational element across a wide range of digital applications and platforms—particularly those designed for children. This development has given rise to the phenomenon of “digital child,” referring to a child that grows up in a digitally immersive environment with continuous interaction from an early age. While this environment provides substantial benefits in terms of education, culture, entertainment, and social engagement, it simultaneously poses serious concerns regarding children's privacy, psychological and physical well-being, and legal rights. These concerns are rendered more acute by the rapid pace of technological advancement, for which corresponding legal and social mechanisms to safeguard children's rights and well-being have yet to be established.

This topic is important as it arises from the critical imperative to develop both national and international legal frameworks that govern the relationship between children and technology, given the widespread use of artificial intelligence (AI) applications. These applications present potential risks, including the manipulation of personal data, exposure to non-targeted or inappropriate content, and possible influence on children's cognitive and behavioral development. Thus, there is an urgent need for a comprehensive and integrated socio-legal protective framework that addresses the complex interplay between social realities, the legal structures concerning children's rights, and the evolving technical landscape.

This study is grounded in a methodological framework that integrates both descriptive and analytical approaches in order to deconstruct key concepts and examine relevant legal and social texts. Additionally, it uses a comparative approach to compare legislation

and international practices concerning the protection of children from the risks associated with artificial intelligence.

The main question of this study is: how to construct a socio-legal framework that effectively safeguards the digital child against risks posed by AI applications, given the significant gap between technological advancement and current legislative frameworks?

This key question gives rise to multiple sub-questions, such as :

- Which AI applications with which children currently interact? and what are the resulting risks from the interplay between social and legal aspects?
- To what extent do existing national and international legal instruments provide adequate and effective protection for children within digital environments?
- In the context of enhancing protection for the digital child, what roles should the family, educational institutions, and civil society play?
- To keep pace with technological advancement while safeguarding the best interests of the child, how can a preventive and awareness-raising strategy be developed?

Section One: The child and AI applications amid Legal, social, and digital challenges

Before delving into the definition of Artificial Intelligence (AI) and its applications, it is necessary to first establish a clear understanding of the concept of the child. This involves clarifying the terms that illuminate the study, particularly the legal and scientific interpretations of childhood, to remove ambiguity and ensure the precise use of correct and lawful terminology. It is imperative for the legislator to protect the child from the harms of

crime, as well as to prevent their involvement in it. This is achieved by enshrining the guarantees set forth for the legal protection of the child, identifying when and how the child becomes a subject of protection, and highlighting relevant applications of artificial intelligence.

Subsection One: The Concept of the Child in Law and Across Various Disciplines

Before providing a legal definition of the term "child," it is essential to explore its meaning across various disciplines, including linguistics, Islamic jurisprudence—as found in the Qur'an, Sunnah, and Islamic legal thought—as well as in psychology and sociology. This multidisciplinary approach ensures a comprehensive understanding of the concept and its implications.

In legal terms, reference must be made to Algerian legislation, which encompasses multiple laws and obligations, as well as to international treaties and conventions. These global instruments have adopted numerous provisions and legal guarantees aimed at enhancing childhood as a distinct and protected phase of life, garnering international and regional attention and concern.

Accordingly, this subsection is divided into thematic parts addressing the definition of a child from various perspectives, including legal, international, psychological, and sociological viewpoints, as outlined below.

Subsection 1.1: The Definition of the Child in Psychology and Sociology

Sociologists and psychologists have presented varying definitions of the child. Some scholars define childhood based on a specific age range, beginning at birth and extending to the age of twelve. Others consider childhood as the initial stage in the development and formation of personality, beginning at birth and continuing until the

onset of puberty. A further perspective views childhood as extending from birth to adulthood, noting that this period varies significantly across different cultures and societies (Zidan, 2007).

Sociologists reject the idea of defining a fixed age at which each stage of childhood ends. Instead, they argue that such determinations depend on each individual's personal abilities, social conditions, and cognitive development level, which all influence the nature of interpersonal relationships. They agree that a person passes through various developmental stages that are difficult to separate due to their interconnected and overlapping nature. Nevertheless, for the purposes of scientific research and the practical application of psychology, such a conceptual classification of developmental stages is considered necessary (AbdelkaderKwasmiya, 1992).

Some scholars have classified childhood stages based on sexual instinct and the accompanying suppressed instinctual desires. Others have based their classifications on the physical growth rate, whether fast or slow. Additionally, some have approached the division according to the daydreams or fantasies experienced by the individual (Al-Masdi, 2008)).

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From the perspective of psychologists, the concept of childhood is broader than that of sociologists. Psychologists include the prenatal stage—the formation of the fetus in the mother's womb—as part of childhood. They view childhood as beginning from the embryonic stage and ending with sexual maturity, which varies in its

manifestations from one individual to another and between different sexes (Al-Masdi.p14., 2008).

Generally, psychologists agree that the prominent stages of childhood are as follows:

- **Infancy:** from birth to three years of age;
- **Early Childhood:** from three to five years of age;
- **Middle and late childhood:** from five to twelve years of age;
- **Adolescence.**

However, it can be said that these stages vary across different cultures and are influenced by a range of social relations, traditions, and differing concepts held by psychologists and sociologists according to their perspectives and prevailing beliefs.

Subsection Two: The Definition of the Child according to the Algerian Legislation and International Treaties

In reality, Algerian legislation as a whole does not contain an explicit text that precisely defines the child or details the stages of childhood with specific age limits. What exists are various terms used to refer to the child in different expressions, including: "child" and "childhood," "minor," "juvenile," and "adolescent." (SalimAliwa p8, 2009-2010)

Some jurists rely on two criteria in defining a minor:

First: The Organic Criterion in Defining the Child

The organic criterion focuses on the biological characteristics of the child's body, considering a person a child if they exhibit certain physical traits. They are deemed an adult once specific bodily features appear, such as nocturnal emission in males or the development of breasts and the onset of menstruation in females.

Second: The Age Criterion in Defining the Child

This criterion relies on the chronological age rather than physical condition, particularly at the time the offense is committed. Therefore, it requires establishing the child's date of birth to determine whether the individual is considered a child (Ben, 2014, p. 29).

Algerian legislation does not explicitly define the term "child" in a clear provision. However, the new Child Protection Law No. 15/12 concerning the protection of childhood stipulates in its Article 2 that a child is any person who has not reached the age of eighteen in full. This definition aligns with that of the French legislator. Nevertheless, this law omits reference to the beginning stage of childhood and leaves room for judicial interpretation, taking into consideration the best interests of the child (Law No. 15-12, 2015.).

Referring to Article 40 of the Algerian Penal Code, it stipulates that: “No measures shall be imposed on a minor who has not completed thirteen years of age, except protective or educational measures. Nevertheless, in cases of misdemeanors, the minor shall only be subject to reprimand. A minor aged between thirteen and eighteen shall be subject to protective or educational measures or mitigated penalties (Law No. 16-02, 2016)

The Family Code, according to Article 7, stipulates that “the capacity of a man or woman to marry is completed upon reaching the age of nineteen. However, the judge may grant permission to marry before this age for legitimate reasons or necessity, provided that the ability of both parties to marry is confirmed. .” (Law No.84-11, 1984)”

From the text of the article, we deduce that the legislator in the Family Code set the age of majority at nineteen years. Additionally, it established a minimum limit for the childhood stage by granting the

fetus the right to establish lineage pursuant to Article 40 and subsequent articles.

Referring to Article 42 of the Civil Code, it states that: "A person is not considered legally competent to exercise civil rights if they lack discernment due to young age, mental retardation, or insanity. A person is considered legally incompetent if they have not reached the age of thirteen." (Order No. 75/85 Code, 2007)

Furthermore, the legislator has protected the child under the 2020 constitutional amendment by granting special care and consolidating the provisions related to child protection, such as Law No. 15-12 concerning the protection of the child. (Law No.15-12, 2015)

Similarly, the Penal Code pays special attention to the delinquent child, referred to as the juvenile and the child exposed to moral danger. It dedicates specific legal procedures and mechanisms to protect and care for the child, which will be detailed later in our study regarding the protection mechanisms established for the child.

At the international level, prior to the adoption of the Convention on the Rights of the Child in 1989 by the United Nations General Assembly, there were no international treaties or even established customary law regarding the definition of the term "child" or its precise scope. International public law showed limited concern for children's rights and for establishing means to ensure their protection, and for many years and decades, a clear definition of the child was absent. (Fakhar, 2014, p. 25)

Although international law has shown interest in the child and childhood, and these terms have appeared in numerous international documents concerning human rights in general, or children's rights in particular, these documents did not contain a specific and precise definition of the terms "child" and "childhood." A clear and definitive

definition was only established in the text of the Convention on the Rights of the Child of 1989. (Al-Masdi, 2008, pp. 15-16)

"For the purposes of this Convention, a child means every human being under the age of eighteen unless under the applicable law, majority is attained earlier." (Convention on the Rights of the Child, 1989)

It can be inferred from the text of the article the clear divergence among domestic laws of different countries regarding the beginning and end of childhood. The initial draft of this article defined the child as "any human being from the moment of birth until reaching the age of eighteen, or according to the law of the state if the age of majority is attained earlier." Many countries objected to this draft, especially those that extend their legal protection to stages prior to birth. (Souidi Hajj Mohamed, 2017, p. 18)

The phrase "unless majority is attained earlier under the applicable law" implies that a person is regarded as a child based on national standards if they have not reached the age of majority according to the law of their country before the age of eighteen. Therefore, the applicable law of the individual's country determines their status. While the age of eighteen serves as the international benchmark, the second condition—that majority is not reached according to national legislation—applies in cases where the first condition is unmet. This dual criterion reflects the balance between universal and domestic legal frameworks in defining childhood. (Slim, 2009-2010, p. 13)

The Convention on the Rights of the Child is considered an international charter and a legally binding instrument that defines the civil, political, economic, and cultural rights of children. The United Nations Committee on the Rights of the Child supervises the

implementation of the Convention's provisions. (WafaaMarzouk, 2010, p. 59)

Section Two: Artificial Intelligence – Nature and Applications in the Digital Age

In this section, we aim to define the concept of artificial intelligence (AI), while highlighting its most prominent applications and risks in the fields of the digital era.

Subsection One: Definition of Artificial Intelligence and Its Applications

Artificial intelligence (AI) has become an essential part of many technological fields today, such as computing, medicine, and cybersecurity. To fully understand this concept, it is important to address its definition and applications.

AI is defined as the attempt to make a computer or a programmed machine operate like a human being—whether in thinking, behavior, problem-solving, or performing all aspects of daily life—through studies conducted on humans, from which results are derived to help explain human behavior and program it to be applied to machines. (YehiaDahshan, 2020, p. 110)

Artificial intelligence is also defined as the science aimed at designing intelligent systems that enable computers to simulate human thinking and operate with similar human capabilities. This is achieved either by feeding the system with large volumes of data and information or through self-learning mechanisms. (Mohamed Fathy Mohamed Ibrahim, 2022, p. 1033)

Artificial intelligence is the science concerned with creating intelligent machines that behave as would be expected from a human being. AI encompasses several fields, including natural language processing, robotics, speech recognition, artificial neural networks, and expert systems. (AblaRoubah and AbdeljalilBoudah, 2015, p. 203)

Based on the aforementioned definitions, it can be said that artificial intelligence is not merely a technical concept but also a linguistic and terminological term in which human understanding intersects with technological advancement. Therefore, it is essential to keep pace with these concepts through scientific studies to broaden understanding of the role of artificial intelligence in daily life and its applications across various fields.

Despite the significance of artificial intelligence in the world of technology, there is no universally agreed-upon, comprehensive definition of *intelligence artificielle* (artificial intelligence). AI is considered more of a field than a concept that can be easily defined, and the definitions of artificial intelligence vary depending on the discipline in which it has developed. (Ghofran Mohamed Ibrahim, 2022, p. 128)

One of the most prominent applications of artificial intelligence is:

First: Robots (Humanoid Machines)

A robot is a machine equipped with various software systems to perform specific tasks, either under human supervision and control or through autonomous computer programming. Robots—referred to by some as “humanoids”—vary depending on the types of sensors they are equipped with and the effectors they use. For instance, a mobile robot requires legs or wheels to move, while a remotely operated robot must be equipped with a camera.

A robot typically consists of a solid frame, connected joints, and components referred to as "links," with the points where these links meet called "joints." These joints are responsible for motion. For example, the arm is considered a link, while the shoulder and elbow are joints. Robots also include a control system, which acts as the central unit connecting all the devices and subsystems; without it, the robot would merely be an inanimate metallic object.

Robots require multiple control systems, such as an arm control system, a walking mechanism control system, and a central processor—usually a small computer—that receives input from the robot's sensory devices and sends out commands in the form of electrical signals. These signals direct the robot's actions.

The design and structure of a robot vary according to the tasks assigned to it. For example, a robot used in industrial settings differs from one used in medicine, law, or even customer service. (El-Menshawy, 2023, p. 106)

Second: Expert Systems

An expert system is defined as: "an on-demand information system composed of components that enable interaction with the user, relying on inference tools and specialized knowledge-based rules."

The primary function of an expert system is to address specific problems by providing conclusions and suggestions based on those rules. Additionally, the system may include tools that explain how the proposed solutions were reached, and offer multiple alternatives for resolution. This makes it an effective tool for solving complex problems and supporting decision-making processes. (Khantit, 2020, p. 387)

Third: Facebook Algorithms

Artificial intelligence systems have taken on a pivotal role in the virtual world by analyzing data to detect trends. AI-powered programs are now capable of determining whether a brand is being mentioned in

a positive, negative, or neutral context by collecting and analyzing data from social media platforms.

AI-based social listening tools process trends and interpret the direction of user sentiment, allowing for deeper insight into public perception and engagement. This enables brands and organizations to adjust their strategies based on real-time sentiment analysis and behavioral patterns drawn from massive data sets. (How to leverage artificial intelligence on social media platforms. For more details, p. . /https://e3arabi.com)

In 2013, Facebook launched the Facebook AI Research (FAIR) center, driven by its ambition to dominate social networks for the next two decades. This advanced artificial intelligence research center, with branches in New York and Paris, is led by AI pioneer Yann LeCun. The center aims to develop predictive capabilities that would enable the platform to make informed guesses about what users want, thereby improving user interaction. This includes tailoring the main news feeds to better suit individual users, directing advertisements more effectively, and enhancing chatbot programs. (Mohammed Abbas Hammoudi Hussein Al-Zubaidi, 2024, p. 26)

Section Two: Risks Facing the Digital Child Due to the Use of Artificial Intelligence Applications

Children in the digital age face increasing threats resulting from the unregulated use of artificial intelligence applications, which pose significant risks to their ethical and psychological frameworks. Among the most severe of these threats are AI-generated sexually abusive materials, used to simulate highly realistic fake images or videos that are exploited for blackmail and abuse. Additionally, AI-powered online harassment employs algorithms to precisely target children based on their behavioral patterns and personal data. (UNICEF, (2021))

The risk is further exacerbated by deepfake technologies, which enable perpetrators to impersonate individuals close to the child,

thereby facilitating exploitation and deception. In the absence of effective regulation, access to harmful and misleading content becomes easily available to children, threatening their cognitive and psychological well-being. (Al-Aroud Rakez Salem, 2024, pp. 1-20)

Moreover, the leakage of personal data constitutes a genuine risk amid the collection of vast amounts of children's information without strict regulations. In addition, predatory AI tools enable perpetrators to disguise themselves and blend into digital environments such as virtual games. Finally, these systems contribute to the reduction of human interaction and the enhancement of social isolation among children, thereby hindering their emotional and social development. (Livingstone, 2009)

Artificial intelligence poses a direct threat, as increased screen time may cause children to become reliant on digital platforms from an early age. Consequently, this can lead to various physical and mental health consequences, including but not limited to depression, anxiety, obesity, migraines, eye strain, poor posture, and insomnia. (Al-Aroud, 2024, p. 16)

In the same context, most child rights organizations, when discussing children's privacy and safety on the internet, have confirmed that 90% of children have direct access to the internet. Consequently, parents or guardians are often unable to prevent them from visiting websites containing harmful content or violating privacy and security, as well as AI-based applications. This situation renders children vulnerable to internet predators. (Issam Mansour, 2009)

Chapter Two: Socio-Legal Solutions to Protect the Digital Child from the Risks of Artificial Intelligence

This chapter highlights the need to build an integrated socio-legal framework that combines social and legislative approaches to ensure the protection of children in the digital environment. It reviews possible solutions that balance benefiting from artificial intelligence while safeguarding children's rights in the digital age. The focus is on

legal frameworks, public policies, and community practices that can provide preventive protection for the digital child.

Section One: Legal Frameworks for Protecting Children on the Internet

The child is a vulnerable being unable to defend their rights or protect themselves from dangers threatening their physical and psychological safety. To prevent children from living in fear and instability, international and regional efforts have been dedicated to their care and criminal protection. Therefore, this section will address the concept of protection, when a child is entitled to such protection, and the manifestations of criminal protection for children.

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As stated in Article 3, Paragraph 3 of the Code of Criminal Procedure, civil liability claims are admissible for all types of damages, whether material or moral, as long as they arise from the facts subject to the criminal case. (Order No.66-155, 2006)

Second:TheJuvenile

Offender

A juvenile is any person, male or female, who has not yet reached the legally defined age of criminal responsibility. Delinquency refers to the deviation from optimal moral standards through acts that violate the law. Since juveniles are the foundation of the future, the hope of society, and the backbone of the family, their delinquency harms both themselves and their communities. These losses extend to human services and the potential contributions juveniles could offer to society in terms of energy and productivity. The damages affect the body, mind, and emotions, disrupt relationships of harmony and peace, and inflict societal harm manifested in the adverse consequences of crime.

Sociologists describe juvenile delinquents as victims of specific circumstances characterized by social instability and insecurity, often linked to a significant decline in their standard of living. They are considered victims of either one or a combination of these factors. (Jaafar, 2004, p. 9)

Psychologists and sociologists reject setting a fixed age to mark the end of each juvenile stage, attributing it instead to the degree of social and psychological maturity unique to each individual, their circumstances, and their level of mental development that enables positive interaction. They differ in how they classify these stages: some base it on sexual instincts and associated psychological forces, others rely on the pace of physical growth, while some divide it according to the frequency of daydreams experienced by the individual. (Qawasmiya, p. 49)

A juvenile offender is a child or adolescent who commits acts that deviate from social norms and violate the law. The issue of juvenile delinquency is a psychological and social problem that affects the

family, school, and society, drawing the attention of sociologists, educators, and legal experts. (Marzouq, p. 70)

The Algerian legislator did not distinguish between the case of the juvenile offender and the case of the act posing a moral danger. Moreover, in determining the age of the juvenile, the legislator aligned with the provisions of Article 1 of the 1989 Convention on the Rights of the Child, defining the juvenile by the individual's age period, which begins from the age of discernment—before which criminal responsibility is absent—and ends upon reaching the age of majority as specified by law.

Third: The Juvenile Exposed to Moral Danger

Before addressing the definition of the juvenile exposed to moral danger, it is necessary to understand the concept of danger.

Definition of Danger

1. **Linguistically:** supervision over destruction, stake, compensation, and share. In Umar's speech regarding the division of the Valley of Villages, he said, "Uthman had a stake in it, and Abdul Rahman had a stake." (Al-Mujam Al-Waseet [The Medium Dictionary], p. 243)

2. **Terminologically:**

This definition appears in the *Legal Terminology Dictionary* under the term "danger," derived from the Latin term *Gravitus*, which means the quality of being serious or dangerous.

After defining the concept of danger, it is necessary to clarify the meaning of the juvenile exposed to moral danger and how this danger affects their behavior and emotions in life.

The childhood stage is crucial in shaping the child's personality, as the roots of their initial character are laid during this period based on the experiences they encounter—such as failure, frustration,

rejection, reprimand, oppression, pain, and cruelty—which leave lasting effects on their personality later on. Society pays special attention to both the healthy child and the delinquent or juvenile offender, as today's child is tomorrow's adult and the wealth of the community. (Al-'Isawi, 2005, p. 53)

Legal scholars define juveniles exposed to moral danger as those who have not committed legally punishable acts, yet whose personal, familial, or educational circumstances—or behavior—indicate that they are susceptible to negative influences placing them on a slippery slope toward delinquency and criminality. Such juveniles are considered to be in an abnormal condition that may lead to their involvement in committing crimes in the future. (Fakhar H. I., p. 45)

The juvenile exists within multiple environments: the family setting, peer groups, youth communities, and socioeconomic or tribal circles, sharing emotions, needs, and ideas with others. This sharing and interaction are influenced by the surrounding environment's atmosphere, and the juvenile is affected by prevailing tendencies of alienation and hostility toward society. All these factors can impact the juvenile depending on the pattern of their social environment. (Al-Shawarbi, 2003, p. 19)

According to psychologists, the upbringing and care of a child during the early stages of life have a profound impact on their future behavioral development. If this process is not carried out by parents or caregivers based on sound principles of psychological well-being, it may lead the child down dangerous paths from which escape becomes difficult in the future. Delinquent behavior, in this case, becomes an expression of distorted values endorsed by the deviant environment in which the child was raised.

"Meanwhile, under Law No. 15-12 concerning the protection of the child" ("Law No. 15-12, 2015) Law No. 15-12, which repealed the provisions of the previously mentioned legislation on the protection of childhood and adolescence, defines in Article 2 a child in moral danger as follows:

"A child whose health, morals, upbringing, or safety are at risk, and whose living conditions or behavior may expose them to potential or actual harm to their future, or who is in an environment that threatens their physical, psychological, or educational well-being." (Fakhar H. B., p. 45)

The right of the juvenile to proper care primarily lies with the family, as it is the cornerstone of education and upright behavior. The family plays a foundational role in shaping the child, protecting them from risks that may endanger their upbringing and conduct. It is the family's responsibility to ensure the child's healthy development, foster their intellectual capacities, and safeguard their physical well-being, avoiding any exposure to harm—whether material or moral. Therefore, parental neglect is often the root cause of a child's instability and potential inclination toward delinquency and crime. The aforementioned factors represent some of the most significant reasons that drive children toward deviant behavior, ultimately placing their lives and conduct at risk—necessitating legal protection mechanisms, which will be reviewed later.

The rapid development in the field of information technology has led to numerous violations that pose risks to minors who access the Internet—an almost certain occurrence. Accordingly, the international community and national legal systems must take this issue into account. This is the focus of our next discussion, where we will examine the legal texts addressing these various forms of criminal behavior.

Section Two: The Position of the Algerian Legislator on the Risks of the Internet to Children

The Algerian Constitution guarantees the protection of fundamental rights and individual freedoms, and obliges the state to ensure the inviolability of human dignity, private life, and the confidentiality of correspondence and private communications. These principles have been enshrined through legislative texts found in the Penal Code, the Code of Criminal Procedure, and in specific laws

related to childhood, such as Law No. 15-12 on the protection of children. (Presidential Decree No20-442, 2020)

The Algerian legislator addressed protection against cybercrimes in the amendment to the Penal Code under Law No. 04-15, with the aim of deterring and suppressing this type of crime. This was done through the introduction of Articles 394 bis to 394 bis 7. (Law No.04-15, 2004)

Like many other legal systems, the Algerian legislator has addressed various forms of assaults against children, particularly criminal exploitation in all its forms, including obscene acts and human trafficking. This is reflected in the provisions of **Article 143** of the Penal Code (Law No. 15-12 of July 15, 2015) . However, the wording of the article is general in nature and does not specifically refer to modern communication networks, especially the Internet.

Referring to **Law No. 09-04** (LawNo.09-04, 2009), which concerns the specific rules for the prevention and combating of crimes related to information and communication technologies, we find that it contains 19 articles divided into six chapters. It was drafted by a group of legal professionals in collaboration with experts and practitioners in the field of electronic media from all relevant sectors. The law includes specific provisions regarding its scope of application, as well as others concerning the monitoring of electronic communications, along with various additional regulations. Chapter Five of the law establishes a National Authority for the Prevention and Combating of ICT-related Crimes, tasked with coordinating and promoting efforts to prevent such crimes and assisting judicial authorities, police services, and other relevant entities.

At the institutional level, a guide was developed by the Ministry of Post and Telecommunications, in collaboration with ministries responsible for national defense, interior, religious affairs, national education, communication, youth, national solidarity, as well as the National Authority for the Protection and Promotion of Childhood, the National Gendarmerie, and the National Police. This guide aims to

provide clear and comprehensible information about the potential online risks children may face. It also outlines the measures that parents, guardians, and educators should take to protect children and enable safer, more effective internet use. For these measures to be truly effective, they must involve both the family and the broader community (Ministry of Post and Telecommunications., 2020).

Section Two: Socio-Technological Strategies for Protecting the Digital Child

This section aims to explore socio-technological solutions that involve the use of advanced technologies to ensure protection, alongside strengthening the role of the family and society in fostering digital awareness. Such awareness is essential to guarantee that children engage safely with the digital world.

Subsection One: Policy Guidelines on Artificial Intelligence for Children

The United Nations Children's Fund (UNICEF) has issued policy guidelines on artificial intelligence (AI) for children (UNICEF, Policy Guidance on AI for Children, 2021) , aiming to ensure that children's rights are respected and protected amid technological advancements. These guidelines are grounded in the Convention on the Rights of the Child and outline nine essential requirements for developing AI systems that prioritize children's best interests:

1. **Supporting children's development and well-being:** AI systems should promote children's cognitive, physical, and emotional growth.
2. **Ensuring inclusiveness for all children:** Systems must be accessible and suitable for all children, regardless of their social or cultural backgrounds.
3. **Prioritizing fairness and non-discrimination:** AI must be designed to be fair and avoid any form of discrimination against children.
4. **Protecting children's data and privacy:** Children's data must be handled with care, ensuring protection from misuse.

5. **Ensuring children's safety:** Systems must be secure and designed to minimize potential risks to children.
6. **Providing transparency, explainability, and accountability:** AI systems should be transparent, with understandable decision-making processes concerning children.
7. **Enabling governments and companies to understand AI and children's rights:** Stakeholders should be equipped with the knowledge and resources necessary to uphold children's rights in technological systems.
8. **Preparing children for current and future developments in AI:** Children should be educated on how to safely interact with and benefit from modern technologies.
9. **Creating an enabling environment:** A supportive environment must be fostered to encourage innovation while safeguarding children's rights in the digital age.

These guidelines aim to ensure that AI technologies contribute to the promotion of children's rights and offer a safe, child-friendly digital environment.

Section Two: Developing Digital Awareness and Safety Education

In the information age, it has become essential for parents to adopt digital mediation strategies to ensure their children's safety on the Internet, especially during late childhood. These strategies include guiding children towards the safe use of technology, monitoring their digital activities, and setting reasonable time limits for device usage. Parents should also raise awareness among children about online risks such as cyberbullying, privacy protection, and interaction with harmful content. Thus, parental mediation plays a pivotal role in reducing cyber risks and enhancing digital safety for children in this technology-filled era. (Al-Shami, 2022, p. 452)

Developing child-friendly intelligent applications is a fundamental pillar for protecting children in the digital environment. These applications should respect the child's privacy and provide safe and age-appropriate content, with user interfaces that suit their cognitive

abilities. Such systems must be designed according to the principles of "privacy by design," and integrate smart parental control tools that enable families to monitor content and the child's digital behavior. UNICEF emphasizes that AI applications should be developed within a framework that respects children's rights, promotes their participation, and ensures both their digital and environmental safety simultaneously (United Nations Children's Fund (UNICEF), 2020, p. 12).

Based on all that has been mentioned, here are some practical suggestions to consider: Talk with your children about artificial intelligence and help them understand that the smart speaker at home is not like a trusted friend. You can explain the differences between people and digital assistants, or between direct conversations with friends and family and chatting on social media. Additionally, you can share examples from your own life.

Engage in open discussions about privacy, bias, bullying, and other safety issues on the internet with your children, avoiding a preachy tone or trying to cover every aspect of AI all at once. Instead, ask for their opinions and remain open-minded. This approach can lead to meaningful conversations that help you learn together. (Rami Al-Ahmadiya, 2024)

Conclusion:

Artificial intelligence has become a key driver of technological advancement, improving quality of life across many sectors such as education, healthcare, and communication. However, the use of AI applications by children poses real threats to their digital rights and exposes them to various socio-legal risks that may harm their psychological and physical well-being. As the most vulnerable group to digital exploitation, children require stringent legal protections that ensure their privacy and provide a safe digital environment.

Socio-legal protection for the digital child depends on developing a comprehensive international and national legislative framework that safeguards children's digital rights and limits violations that may arise from the use of AI technologies. In this regard, governments, international organizations, and educational institutions must intensify efforts to enact effective laws that prohibit online exploitation of children and enhance protection from harmful content and manipulative or threatening material.

Such socio-legal protection also requires a preventive approach to raise awareness among children and their families about AI-related risks and to develop the necessary skills to avoid digital threats. By fostering partnerships between the public and private sectors, a secure digital environment can be created that allows children to benefit from technological advancements while minimizing the risks of irresponsible use.

In conclusion, socio-legal protection of children from AI risks is an urgent necessity to ensure children are not harmed, whether in terms of privacy or mental health. The responsibility to protect children in this context lies with all stakeholders—from governments to companies and NGOs—to guarantee a safe and sustainable digital environment that upholds children's rights and safeguards their future.

Recommendations:

- Develop integrated national and international laws aimed at protecting children's digital rights by regulating AI use and ensuring the security of children's personal data. Such legislation should include safeguards against digital exploitation, harmful content, and violations occurring through AI applications.
- Enhance cooperation among countries and international organizations to establish global standards and laws protecting children from digital risks. Global partnerships can harmonize policies and legislation across countries, providing a safe digital environment for children worldwide.
- Empower educational institutions and families to raise awareness among children about the risks of modern technologies and AI. This awareness should teach children how to identify harmful content and cope with digital threats, supported through school curricula and targeted family awareness campaigns.
- Develop specialized educational programs to protect children from AI-related digital risks. These programs should teach children safe technology use and how to protect their personal data.
- Establish effective monitoring mechanisms to prevent children's exposure to harmful content or exploitation on AI platforms. Regulatory bodies and responsible authorities should conduct regular inspections to ensure these platforms comply with child protection laws.
- Utilize AI applications to monitor digital content and analyze behavioral patterns to detect security threats.
- Promote research and studies on AI's effects on children's psychological and physical health. Develop strategies to assess potential harms from excessive technology use and ways to mitigate them.
- Require AI technology developers to adhere to ethical practices respecting children's rights, implement strict privacy protection standards, and provide safe options for children using their apps and platforms.
- Encourage digital platforms and developers of child-targeted applications to provide safe, interactive environments that promote

positive engagement, including parental control tools and protection systems against abusive content.

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