

Children's Rights In Cyberspace Under International Law

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Abstract:

In the context of our online world, the legal definition of a child gains renewed importance, especially in the context of international corporations, social media structures and gaming organizations, in shielding children's rights in cyberspace. This study emphasizes criminal regulation, global cooperation, platform responsibility, child-centered design, effective tracking, and complaint mechanisms as needful equipment for protecting minors in the virtual surroundings. Following the high rate of digital activities, the importance of global legal frameworks governing child's rights has increased. The current human rights devices in particular the CRC and its Optional Protocols offer a sturdy but insufficient framework for virtual protection. While International Law has shown adaptability through interpretation and law development, large gaps remain in enforcement and regulations. These limitations underscore the need for persisted legal evolution.

On the other hand, the growing impacts of online platforms are also alarming as it affects a child's psychological condition. More specifically, they often face social media scams including misleading online content and subscription charges with fake processes. These fraudulent activities have become very common that not only lead to blackmailing children, but also threaten their personal identity and cause serious emotional burdens.

Key Words: *Children's Rights, Cyberspace, International Law, Digital Safety, Online Child Protection.*

حقوق الأطفال في الفضاء السيبراني في ضوء القانون الدولي

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الملخص:

في ظل العالم الرقمي المعاصر، اكتسب التعريف القانوني للطفل أهمية متزايدة، خاصة فيما يتعلق بدور الشركات الدولية، ومنصات التواصل الاجتماعي، وشركات الألعاب في حماية حقوق الأطفال في الفضاء السيبراني. يسلط هذا البحث الضوء على أهمية التنظيم الجنائي، والتعاون الدولي، ومسؤولية المنصات، والتصميم المراعي لاحتياجات الطفل، وآليات المراقبة، ونظم الشكاوى كأدوات أساسية لحماية الأطفال عبر الإنترنت. ومع التوسع المتسارع في الأنشطة الرقمية، تزايدت أهمية الأطر القانونية الدولية المنظمة لحقوق الطفل. ورغم أن الصكوك الدولية، وعلى رأسها اتفاقية حقوق الطفل وبروتوكولاتها الاختيارية، توفر أساساً قوياً، إلا أنها لا تزال غير كافية لتحقيق حماية رقمية شاملة. كما أن مرونة القانون الدولي لم تمنع استمرار وجود فجوات في التنفيذ والتنظيم، مما يستدعي تطويراً قانونياً مستمراً.

ومن ناحية أخرى، تثير التأثيرات المتزايدة للمنصات الرقمية مخاوف بشأن الحالة النفسية للأطفال، حيث يتعرضون لعمليات احتيال إلكتروني، مثل المحتوى المضلل والاشتراكات الوهمية، مما قد يؤدي إلى الابتزاز وتهديد الهوية والتسبب في أضرار نفسية.

الكلمات المفتاحية: حقوق الطفل، الفضاء الإلكتروني، القانون الدولي، حماية الطفل على الإنترنت، السلامة الرقمية.

Introduction

The protection of children's rights in cyberspace has become an urgent legal and societal necessity due to the rapid expansion of digital technologies and the increasing engagement of minors in online environments. These developments have created new opportunities for education, participation, and expression, but they have simultaneously exposed children to unprecedented risks, including cyber exploitation, privacy violations, and digital manipulation. Accordingly, the effectiveness of legal protection in this field depends on the ability of national legislation to align with evolving international standards.

This study examines how international law addresses the protection of children in cyberspace and evaluates the extent to which the Saudi legal system is consistent with these international obligations. The comparative approach highlights both areas of convergence and existing legislative and practical gaps.

The importance of this research is particularly evident in the Kingdom of Saudi Arabia, where the use of the internet, gaming platforms, and social media by children has increased significantly. This digital expansion has been accompanied by a rise in cybercrimes targeting minors, which underscores the importance of the Anti-Cybercrime Law, the Child Protection Law, and the Personal Data Protection Law. Moreover, Saudi Arabia's commitment to the Convention on the Rights of the Child and its Optional Protocols reflects a national effort to strengthen cybersecurity, enhance data protection, and promote a safe digital environment for children.

Effective protection requires continuous cooperation between governmental institutions, civil society, educational bodies, and families. It also necessitates raising awareness among children themselves so they can safely navigate digital spaces while enjoying their rights to participation, access to information, and freedom of expression.

Research question

This study seeks to answer the following main questions:

1. How does international law address the protection of children in cyberspace?
2. To what extent does the Saudi legal system align with international agreements in protecting children from modern digital risks?

Research aims and Objectives

This research aims to:

1. Clarify the position of Saudi regulations regarding the protection of children's rights in cyberspace.
2. Compare the safeguards provided under international law with those contained in relevant Saudi legislation.

3. Assess the adequacy of the Saudi legal framework in addressing emerging digital risks affecting children.

Research significance

The significance of this research lies in:

1. The increasing digital engagement of children in Saudi Arabia.
2. The rise in cybercrimes targeting minors.
3. The Kingdom's commitment to the Convention on the Rights of the Child and its ongoing legislative and institutional reforms in the fields of cybersecurity and data protection.

Chapter 1: The International Legal Framework for Children's Rights

1.1 Definition of a Child in International Law

The concept of "children" occupies a foundational role inside global human rights law, as legal protections and duties rely profoundly and directly upon this category. The most authoritative and universally general definition is supplied via the United Nations Convention on the Rights of the Child (CRC), put in action 1989. Article 1 of the CRC depicts a child as each person underneath the age of eighteen years except, underneath the regulation relevant to the child, majority is attained earlier⁽¹⁾. This definition establishes a clear age threshold even as permitting restricted flexibility to accommodate domestic legal structures.

This definition has been always reaffirmed across the global and regional human rights systems, along with the African Charter on the Rights and Welfare of the Child and the jurisprudence of global human rights bodies⁽²⁾. Importantly, the CRC's definition is technologically impartial, which means that it applies further in physical and digital environments. In nut shell, children's engagement with cyberspace, whether through social media, online schooling systems, gaming environments, or digital communication tools, falls squarely within the scope of international children safety norms.

In the context of our online world, the legal definition of a child gains renewed importance. Digital technology often blurs age limitations, making youngsters prone to exploitation, surveillance, and harmful content. Consequently, global law's declares recognition of the early life as a covered legal status from the premise of extending conventional child rights protections into the online sphere. Also, as mentioned before,

(1) State-Civil Society Relations: The Importance of Civil Society for the Implementation of the United Nations Convention on the Rights of the Child, Powell, R. & Muddiman, E., p. 172.

(2) Legal Protection of Citizenship of Children Born from Mixed Marriages, Yusrizal, M. p.102.

this definitional readability is vital for ensuring duty and legal duty in addressing virtual risks affecting minors.

1.2 The Convention on the Rights of the Child (CRC) and its Provisions Relating to Digital Protection

The Convention on the Rights of the Child (CRC) represents the cornerstone of global children safety regulation and gives the number one normative framework for shielding children's rights in cyberspace⁽³⁾. While the CRC predates the current virtual age, its provisions are drafted widely, sufficient to embody emerging technological contexts. The Convention adopts a holistic, rights-based method, spotting children as unbiased rights-holders entitled to safety, participation, and provision.

A vital provision relevant to digital protection is Article 3, which establishes the fine interests as most important consideration in all movements concerning children⁽⁴⁾. This principle obliges states to ensure that digital rules, online structures, and technological rules prioritize youngsters' protection, improvement, and properly-being. In cyberspace, this includes designing age-suitable online environments and mitigating exposure to dangerous content material.

Article sixteen ensures youngsters, the right to privateness, defense them from illegal or arbitrary interference with their non-public life, correspondence, and reputation. This provision is an exponentially significant in a generation characterized through information series, virtual profiling, and online surveillance. States are therefore required to modify the collection, storage, and use of kids' non-public data by way of both public authorities and private technical organizations.

The CRC in addition addresses access to information and protection from dangerous substances underneath Article 17, which obliges states to promote youngsters' access to beneficial content while shielding them from records that can be injurious to their wellness⁽⁵⁾. This dual responsibility is in particular applicable to online media, social networking platforms, and digital amusement offerings. In addition to that, Article 19 mandates protection from all types of abuse and exploitation, encompassing cyberbullying, online racism, and virtual sexual exploitation.

The interpretative work of the Committee on the Rights of the Child has been mechanical in clarifying the CRC's software to the digital

(3) Governments' duty regarding children's rights in light of the Convention on the Rights of the Child (CRC), Sadat, S. A. S., p. 22.

(4) Convention on the Rights of the Child, Its Optional Protocols, and Work and Documents of the CRC Committee, Agu, S., In the International Legal Protection of Children in Street Situations, p. 121.

(5) The Committee on the Rights of the Child and Article 12: Applying the Lundy model to treaty body recommendations, Molloy, S., p. 669.

environment. In General Comment No. 25⁽⁶⁾, the Committee explicitly conformed that children's rights below the CRC enlarge completely into cyberspace. It emphasized state responsibilities for regulating digital service providers, promote digital literacy, and ensure significant infant participation in digital policy-making.

Despite its wide scope, the CRC is based closely on nation implementation and lacks direct enforcement mechanisms, especially on the subject of multinational technology corporations. Nonetheless, it remains the foundational criminal framework for protecting kid's rights inside the digital age.

Research problem

A child's engagements with online platforms or digital technologies have presented both opportunities and risks for their day-to-day activities⁽⁷⁾. For example, one in every 8-9 children is active users of social media or digital tools that greatly impact their quality of life⁽⁸⁾. From online addiction, to cyber harassment and above all, sexual exploitation, children are facing an increased rate of cyber risks that warrant robust legal attention. Consequently, global law's declares recognition of the early life as a covered legal status from the premise of extending conventional child rights protections into the online sphere. This definitional readability is vital for ensuring duty and legal duty in addressing virtual risks affecting minors⁽⁹⁾. However, there is less studies focusing on ways by which international laws address children rights and advocate for their protection in the complicated cyberspace.

1.3 Relevant Optional Protocols

The Optional Protocols to the Convention at the Rights of the Child (CRC) had been adopted to bolster and make bigger the protection of children in areas requiring greater unique legal regulations⁽¹⁰⁾. While not all Optional Protocols explicitly address the online world, their provisions have become more and more relevant within the digital age, where technology has transformed the character and scale of infant exploitation and abuse. These devices complement the CRC by means of imposing more specific responsibilities on states and encouraging global

(6) Children's Rights: A Commentary on the Convention on the Rights of the Child and Its Protocols, Vandenhoe, W., Tŷrkelli, G. E., & Lembrechts, S., p.1.

(7) Real risks of digital gameplay: A policy perspective on protecting children and adolescents in online gaming environments, Al-Ahmadi, H. A., p. 13.

(8) Cnn.com (2025). Retrieved from: <https://www.cnn.com/2025/01/21/health/children-online-sexual-abuse-wellness>

(9) State-Civil Society Relations: The Importance of Civil Society for the Implementation of the United Nations Convention on the Rights of the Child, Powell, R. & Muddiman, E., p. 172.

(10) A decade of the optional protocol to the crc on a communications procedure: progress, challenges and the pathways ahead for children's access to justice, Liefwaard, T., p. 1.

cooperation. The Optional Protocol at the Sale of Children, Child Prostitution and Child Pornography (OPSC) is the most directly relevant to youngsters' safety in the cyberspace world⁽¹¹⁾.

It requires states to criminalize the sale of youngsters and all varieties of sexual exploitation, together with the manufacturing, distribution, ownership, and dissemination of child sexual abuse materials. In the virtual surroundings, on line systems and encrypted communication equipment have facilitated the rapid move of such things throughout borders. The OPSC therefore obliges states to undertake effective legislative, administrative, and judicial measures to fight online child sexual exploitation, which includes more education and mutual legal assistance.

Another matching device is the Optional Protocol on the Involvement of Children in Armed Conflict (OPAC). Although in maximum cases pointed on physical issues, OPAC has received renewed relevance as digital systems are more and more used to hire, indoctrinate, and manipulate youngsters into armed businesses. Online propaganda, messaging in social media, and virtual gaming environments had been exploited to target minors, highlighting the requirement to interpret OPAC duties in the awake of modern virtual recruitment strategies.

The Optional Protocol on a Communications Procedure (OPIC) complements accountability by means of allowing children or their representatives to put up individual complaints to the Committee at the Rights of the Child while domestic treatments were exhausted⁽¹²⁾. This mechanism offers a potential path for addressing violations of youngsters' virtual rights, consisting of failures to defend privacy or prevent online abuse. However, its effectiveness stays confined with the aid of low ratification rates and practical obstacles together with lack of awareness and get access of legal help.

Despite their significance, the Optional Protocols face terrific barriers in the digital context. Ratification stays voluntary, enforcement mechanisms are vulnerable, and jurisdictional annoying situations complicate the prosecution of transnational online crimes. Furthermore, the Protocols in large part focus on country wide responsibility, providing restricted direct regulation of private generation companies.

1.4 The Role of the Human Rights Council and the United Nations

The United Nations (UN) plays a critical role in shaping global norms and requirements for the safety of children's rights, which include in the virtual environment. Among its foremost organs, the Human Rights Council (HRC) has been especially influential in addressing the

(11) Electronic recruitment of children in armed conflict: A legal analysis under international humanitarian law, Zaid, Z. A., & Aljasm, N. A., p. 1.

(12) Humanitarian Law Perspective: Protection of Children and Women in Armed Conflict, Rajagukguk, K. P., p. 92.

human rights implications of technological improvement and spotting the precise vulnerabilities faced by kids in cyberspace⁽¹³⁾. Through resolutions, expert reviews, and thematic debates, the HRC has regularly affirmed that children's rights have to be equally blanketed online and offline.

The HRC has adopted several resolutions emphasizing the significance of safeguarding privacy, freedom of expression, and safety from exploitation inside the virtual age. These resolutions underscore states' responsibilities to prevent on line abuse, cyberbullying, and digital sexual exploitation of youngsters, whilst also promoting easy admission to safe and inclusive digital areas⁽¹⁴⁾. The paintings of Special Rapporteurs, specifically the ones focusing on the right to privacy and the sale of sexual exploitation of children, has similarly highlighted the risks posed by means of information surveillance, synthetic intelligence, and unregulated online systems.

Beyond the Human Rights Council, various UN agencies contribute appreciably to children digital safety. UNICEF plays a main function with the aid of developing policy steerage, engaging in research, and assisting states in enforcing child-concentrated digital techniques. Its advocacy emphasizes a balanced technique that protects children from harm even as permitting meaningful participation and digital literacy.

UNESCO addresses troubles associated with online training, information ethics, and media literacy, at the same time as the International Telecommunication Union (ITU) promotes child on line protection requirements in international net governance discussions.

Despite those efforts, the UN system commonly is predicated on gentle law gadgets, which includes hints, tips, and voluntary principles. While those gears have an impact on national rules and company practices, they lack binding force and effective enforcement mechanisms. Additionally, the fragmented nature of global digital governance limits coordinated global responses to rapidly evolving online risks.

1.5 Saudi Arabia's Position on the Convention on the Rights of the Child and Its International Implications

Saudi Arabia acceded to the Convention on the Rights of the Child in 1996, thereby undertaking international obligations to respect, protect, and fulfill children's rights without discrimination. In recent years, the Kingdom has introduced significant legislative reforms aimed at strengthening child protection, including protection in digital environments. These reforms reflect a growing alignment with the

(13) The application of the CRPD and other international human rights instruments in mental health care. In Mental health and human rights: the challenges of the united nations convention on the rights of persons with disabilities to mental health care, Gill, N., & Sartorius, N., p. 5.

(14) The Impact of Adopting UNICEF Growth and Development Modules in Enhancing Nursing Students' Knowledge: A Qualitative Study, Aljeesh, Y., & Ayash, M., p.1.

Convention's principles and with the Sustainable Development Goals, particularly those related to child welfare, education, and safe access to technology.

This alignment demonstrates Saudi Arabia's participation in the global human rights system and its contribution to international efforts to address the challenges posed by digital transformation. However, compliance with international standards remains a dynamic process that requires continuous legal and institutional development in response to technological change.

1.5 Chapter summary

This chapter has set up the global criminal foundations governing child's rights, demonstrating that current human rights devices in particular the CRC and its Optional Protocols offer a sturdy but incomplete framework for virtual protection. While global regulation has shown adaptability through interpretation and law development, large gaps remain in enforcement and regulations. These boundaries underscore the need for persisted legal evolution to cope with the complex realities of children's lives in cyberspace, a subject explored in next chapters.

Chapter 2: Children's Rights in Cyberspace

The skills of cybersecurity are becoming increasingly critical in today's times, particularly among younger people, who are often considered early adopters of new technologies and online content⁽¹⁵⁾. The internet is bringing great convenience to everyone's lives and has the potential to cause a negative impact, along with harming the healthy growth of younger people. The rights of children in cyberspace centers focus on ensuring their privacy, safety and the ability for accessing the information and express themselves. There is protection provided from online abuses like cyberbullying, exploitation and data misuse. The tech companies have responsibilities and are educating the young ones to make informed decisions. Hence, it allows kids to enjoy the digital benefits safely. In this chapter, the concentration will be on the various aspects like right to safe access, privacy, freedom of expression and some related principles.

2.1 The right to safe access to information

According to Allahrakha, (2023), in today's digital world, there is maintaining cyber-security and protecting sensitive information is more important than ever⁽¹⁶⁾. The right to safe access to information is a

(15) A systematic literature review on cybersecurity education for children, Sağlam, R.B., Miller, V. A. & Franqueira, V.N., p. 274.

(16) Balancing cyber-security and privacy: legal and ethical considerations in the digital age, Allahrakha, N., p.78.

necessary component in the case of children's rights in cyberspace. It includes access to cultural, educational and informative digital content. The children get to participate in the digital world for creativity, learning and expression. There is complete protection from illegal, harmful and exploitative online content. This explains that there is a balance between freedom of information and safety and protection. On the other hand⁽¹⁷⁾, there is a need for adequate cybersecurity awareness to better facing of the dangers and risks that are connected to the online environment. This explains that there is a need to provide safer access to information to children. With the help of the online resources that are being provided for learning and digital literacy. The factor of social inclusion enables participation in civic and societal engagement. Apart from this, safe access to information is necessary as children can develop critical thinking and autonomy. It is preparing children for navigating cyberspace responsibly.

One of the essential aspects includes the balancing of access and protection. This explains that over-regulations can lead to digital exclusion or censorship. But also, the under-regulations can expose children to harm. With the help of right-based approach, there is protection, but there is no such limiting of freedom of expression. Also, the safety measures are being proportionate and also age-sensitive. Lastly, the voices of children and evolving capacities are being respected.

2.2 The right to privacy and protection of digital data

According to Kravchuk, (2021), there are legal regulations that codify the privacy rights of children in digital contexts⁽¹⁸⁾. This is especially in the national and international levels. The existing norms are addressing the issues related to the privacy and protection of digital data for children. It is necessary to focus on the best interests of children's rights in cyberspace. By the concept of privacy, there is prevention of identity theft, exploitation and online grooming. There is a need for the prevention of long-term harm from permanent digital footprints. In the Gulf countries like the UAE, there is a multi-layered approach that combines the educational and legislative initiatives. One of them is Wadeema's law (Federal law no.3 of 2016 on child rights)⁽¹⁹⁾. This helps in protecting the child and includes children's privacy from all kinds of online exploitation.

However, there are privacy risks which are being faced by children online. It includes data breaches and the lack of secure storage. Further, there is tracking, profiling and targeted advertising. All this can be

(17) The good practices for the implementation of cybersecurity education for school children, Ondrušková, D. & Pospíšil, R., p.435.

(18) Privacy as a new component of "the best interests of the child" in the new digital environment, Kravchuk, N., p. 99.

(19) Wadeema's law, UAElegislation. Retrieved from: <https://uaelegislation.gov.ae/en/legislations/1176>

managed through applying the privacy by design and privacy by default. There can be provision for the child-friendly notices of privacy. The parents and guardians need to act in the best interest of the child, especially at the time of sharing data online. Guidance can be provided to children on the protection of digital practices. There is a need for balancing participation and protection. Although parental consent is important, there is a need for monitoring along with excessive surveillance, which can violate the privacy of children. This requires respect for the evolving capabilities of children, along with the inclusion of children's voices in digital governance.

2.3 The right to freedom of expression, taking into account the child's age

The right to freedom of expression is considered a fundamental right of humans, which can be applied equally to children. In cyberspace, this right needs to be protected, respected and fulfilled by taking into account the age, maturity and evolving capacities of the child⁽²⁰⁾. The children get the allowance for seeking, receiving and imparting the information along with the ideas online. There is an expression of opinions by the digital platforms, which include blogs, social media and creative content. Along with this, there is participation in social, cultural and civic digital spaces. On the other hand, it is in the best interest of the child to have the right to access, along with imparting information in a respectful manner. The right to access is considered based on the child's age⁽²¹⁾. This right is based on Article 13 of the UN Convention on the Rights of the Child (UNCRC), but it is usually exercised when there is a balance between the need for protection and the maturity and age of the child⁽²²⁾. UNICEF is trying to empower parents and children to engage safely along with the full potential in the evolving digital world. There are a lot of opportunities coming up for a positive change. It includes the promotion of diverse content which supports the right to information among children. This is being provided by diverse, unbiased and positive online content. There is complete transparency and proportionate restrictions for children's content. Lastly, the parents are empowered to access and share content while being safe online.

The ability of children to exercise freedom of expression is evolving. In the case of young children, the expression can be limited to supervised

(20) Professional Child Protection and the Child's Freedom of Expression, Falch-Eriksen, A., <https://library.oapen.org/bitstream/handle/20.500.12657/57670/1/9781000738933.pdf#page=44>

(21) Article 13: The Right to Freedom of Expression. In Monitoring State Compliance with the UN Convention on the Rights of the Child, Lansdown, G. & Vaghri, Z., p. 65.

(22) Children's freedom of expression in the digital age, UNICEF, Retrieved from: <https://www.unicef.org/childrightsandbusiness/media/251/file/Brief-Childrens-Freedom-of-Expression-in-the-Digital-Age.pdf>

educational content and platforms. The guidance and protection are important as it reflecting the principles of evolving capacities. However, there are certain limitations on children's freedom of expression for which the best interest of the child needs to be considered. The focus needs to be on the health, public order and morals. There is a balancing of protection and empowerment, which is respect for expression in line with maturity and age. Further, there is progressive autonomy and meaningful participation in digital life. The right to freedom empowers children to participate actively in the digital society. It is important to have legal safeguarding, parental guidance and responsible platform design for working together in the protection of children.

2.4 The principle of the best interests of the child in the digital environment

According to Özkul, Vosloo & Baghdasaryan, (2025), in the interconnected world of the current times, the rights of children need to be protected all the time⁽²³⁾. The best interest of children is a primary consideration in relation to the digital environment. The Committee on the Rights of the Child emphasizes that all the regulations and laws affecting children need to be guided by the best interest of the child principle. However, in the current times, there is difficulty for companies in terms of stating the best practices. With the help of the principles, there is guidance towards all the decisions that affect children in the digital environment. It includes access to internet, online governance and the usage of digital technologies. On the other hand, feel that children are spending the maximum of their time on educational, entertainment and recreational activities in the digital and internet environment⁽²⁴⁾. They are being exposed to all the types of threats and dangers. The protection of children needs to be supported by the civil institutions, governments and other custodians of children's affairs.

The principle of accessing the digital environment for children is being applied to digital inclusion and access, but it needs to be equitable and affordable. The emphasis lies on the protection of children from exploitation, cyberbullying and abuse. The aspects of data protection and privacy are important. Most of the platforms or the interfaces are being child-friendly. Along with this, there is moderation of content which is age-appropriate and proportionate with the regulations. The best interest principle concentrates on the balance between the protection from online harms, the development of digital literacy and social skills and the

(23) Best interests of the child in relation to the digital environment. UNICEF Innocenti-Office of Global Insight and Policy, Özkul, D., Vosloo, S. & Baghdasaryan, B., <https://www.unicef.org/innocenti/media/10571/file/UNICEF-Innocenti-Best-interests-child-digital-environment-brief-2025.pdf>

(24) Supporting the rights of children in the digital environment in the context of protecting their best interests, Seyyed Naseri, M. & Shah Mohammadi, T., p.1.

participation in digital expression and life⁽²⁵⁾. However, there are challenges in the implementation, which include digital inequality and a lack of access. There is limited participation of children in decision-making. Also, there is commercial prioritization over the welfare of the child. Hence, the principles for the best interest of the child in the digital age demands to have child-centered approach which enhances their lives and also safeguards their rights, safety and future development.

2.5 The Principle of the Best Interests of the Child in the Digital Environment under Saudi Law

The principle of the best interests of the child constitutes a fundamental rule in both international law and Saudi legislation. In the digital environment, this principle requires balancing children's rights to access information and participate online with the need to protect their privacy, identity, and personal data.

In Saudi Arabia, this principle is reflected in the Child Protection Law and the Personal Data Protection Law, which provide a legal basis for safeguarding children from digital harm. These laws address issues such as unlawful data processing, online exploitation, and harmful content. Nevertheless, the regulatory framework still faces challenges, particularly in relation to emerging practices such as the publication of children's images online without their consent and the commercial use of children's digital data.

A comprehensive child-centred approach requires the development of specific provisions that explicitly regulate children's digital privacy and recognize their evolving capacities in the online environment.

Chapter 3: Cyber Risks to Children

3.1 Online Child Sexual Exploitation

Concerning the rising trend of digital media, online sexual exploitation has become very common for children. In this regard, define online sexual exploitation or abuse as an activity that uses technological communication to abuse or exploit children sexually. And, it typically happens when an elder performs such acts with a child who is being exploited as an object⁽²⁶⁾. Not only that, in most cases, child sexual exploitation happens against the knowledge or will of the child using deception or pressure⁽²⁷⁾. Also, to mention, perpetrators also use different gaming platforms to build the trust with vulnerable children and

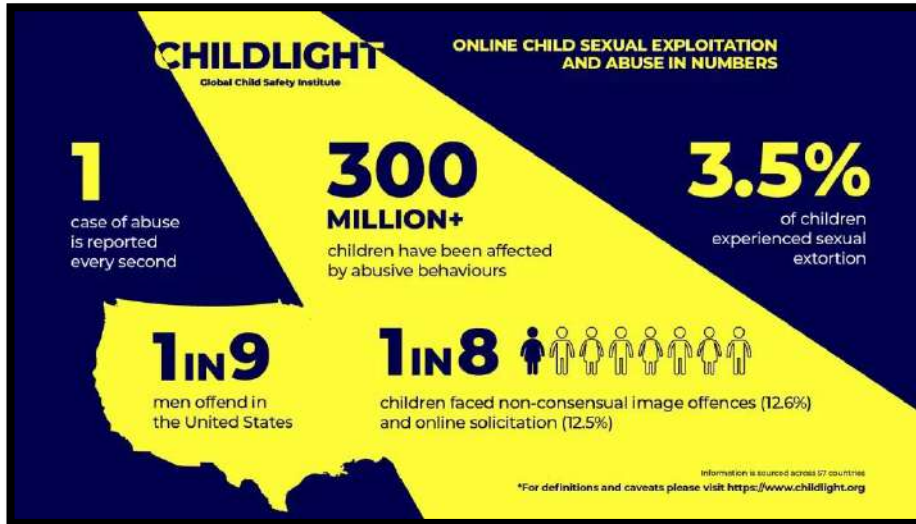
(25) Children's Rights in the Digital Environment under the Convention on the Rights of the Child, Štadniczenko, D., p. 321.

(26) Child sexual abuse and the internet—a systematic review, Ali, S., Haykal, H. A., & Youssef, E. Y. M., p. 404.

(27) Prevalence of online sexual offenses against children in the USA, Finkelhor, D., Turner, H., & Colburn, D., p. 1.

thereafter, manipulate them with unforeseen conversations⁽²⁸⁾. As a result, Cnn.com, (2025) showed that almost 300 million children face digital sexual exploitation in the world, thus having long-term anxiety, trauma and psychological distress⁽²⁹⁾. Hence, the present chapter will critically analyses and explore the main forms of online sexual exploitation faced by young children and their growing impact on children's health and well-being. Given below is the statistical data showing the rate of children facing online exploitation on a global scale.

Figure: Global estimate of children facing online sexual exploitation (Source: Cnn.com, 2025)



Saudi legislation criminalizes online child sexual exploitation through several legal instruments, most notably the Anti-Cybercrime Law and the Anti-Harassment Law. These laws impose severe penalties, particularly in cases involving minors or aggravating circumstances.

Despite the existence of these legal provisions, practical challenges remain, including the difficulty of collecting digital evidence, the use of encrypted communication technologies, and the transnational nature of such crimes. These challenges make international judicial cooperation essential for effective prosecution and prevention.

3.2 Cyber Harassment and Cyberbullying

As stated by Dantchev & Zemp, (2021) cyber harassment is nothing but the use of digital platforms to manipulate young children and harass

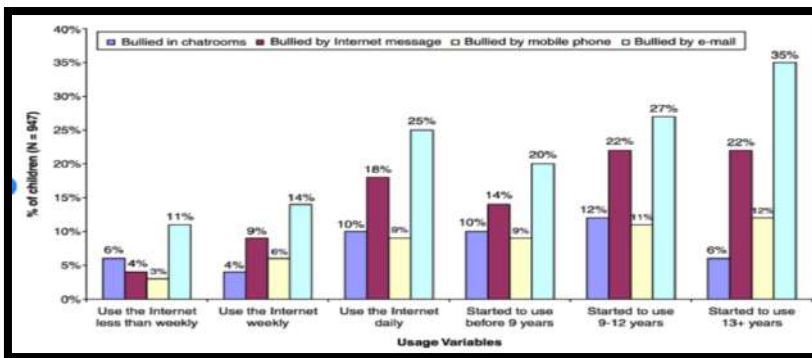
(28) Child Protection in the Digital Ecosystem under the Convention on the Rights of the Child, Wahyu, M. A., p.1.

(29) Cnn.com (2025). Retrieved from: <https://www.cnn.com/2025/01/21/health/children-online-sexual-abuse-wellness>

them online⁽³⁰⁾. This is more or less similar to cyber-bullying which also involves online harassment or threatening by sharing negative remarks or posts against someone⁽³¹⁾. In the case of young children, it is increasing due to the growing trends of social media use that is being exploited to harass them online. However, also argued that younger children internalize cyberbullying and it affects their mental condition causing long-term health issues⁽³²⁾. Not only that, Wahyu, (2025) also showed that children facing cyber-harassment are less likely to achieve high grades in the classroom due to poor mental health and low self-esteem⁽³³⁾. In this regard, the figure below shows the overall experiences of children related to cyber-bullying based on their age group and usage pattern.

However, addressing cyber-harassment requires a more balanced approach that ensures flexibility and openness. There lies the importance of parents and academic settings to work collaboratively against this.

Figure: Data representing the experiences of cyber-harassment among children
(Source: Brandtzaeg et al., 2009)⁽³⁴⁾



3.3 Blackmail and Fraud

Concerning the above discussion, while sexual exploitation and online harassment are being common, children also face sextortion. In this regard, Kim (2023) shows that many children are the victims of blackmail over online platforms. For example, evidence shows that children are commonly blackmailed with their intimate pictures or

- (30) Sibling, peer, and cyber bullying among children and adolescents: Co-occurrence and implications for their adjustment, Dantchev, S., & Zemp, M., p. 1.
- (31) Bullying and cyberbullying increasing in preadolescent children, Bali, et al., p. 261.
- (32) Child sexual abuse and the internet—a systematic review, Ali, S., Haykal, H. A., & Youssef, E. Y. M., p. 404.
- (33) Child Protection in the Digital Ecosystem under the Convention on the Rights of the Child, Wahyu, M. A., p.1.
- (34) Norwegian children's experiences of cyberbullying when using different technological platforms, Brandtzaeg, P. B., Staksrud, E., Hagen, I., & Wold, T., p. 349.

personal details, thus making them more vulnerable to online bullying⁽³⁵⁾. Not only this, Bali et al., (2023) also argued that many social media scams include online contents and subscription charges with fake processes⁽³⁶⁾. These fraudulent activities have become very common that not only blackmail children, but also threatens their personal identity, causing serious emotional burden⁽³⁷⁾. While such incidents occur mainly due to their poor digital awareness, parental negligence is also responsible for the increased rate of online fraud among children. They must be taught how to balance their online activities or information sharing to avoid the likelihood of such risks.

3.4 Internet Addiction and the Impact of Digital Games

Concerning the high rate of cyberbullying among the younger children, Kim, (2023) shows that internet addiction is responsible. That is, the excess use of internet and exposure of children to digital media greatly increases their risk to facing online harassments⁽³⁸⁾. Not only that, Brandtzaeg et al., (2009) also argued that children lack the awareness and knowledge of using social media or online platforms wisely⁽³⁹⁾. This becomes an advantage for perpetrators with other intentions. Plus, the continuous use of digital games affects their concentration and academic scores, which ultimately leads to poor socio-economic growth⁽⁴⁰⁾. But what makes it worse is the high rate of psychological issues due to sleep disturbance and exposure to unwanted social messages that impact a child's day-to-day experiences. Hence, it is crucial to focus on online safety and ensure a secure future for children. In this case, their awareness, knowledge and thoughts can be shaped by technological innovation and sharing responsibility that parents and educators can collaboratively teach. Not only that, governments all over the world also have their vital role in moving towards stricter regulations on digital safety with a greater focus on child protection.

(35) The current state and legal issues of online crimes related to children and adolescents, Kim, H. R., p. 222.

(36) Bullying and cyberbullying increasing in preadolescent children, Bali, et al., p. 261.

(37) Prevalence of online sexual offenses against children in the USA, Finkelhor, D., Turner, H., & Colburn, D., p. 1.

(38) The current state and legal issues of online crimes related to children and adolescents, Kim, H. R., p. 222.

(39) Norwegian children's experiences of cyberbullying when using different technological platforms, Brandtzaeg, P. B., Staksrud, E., Hagen, I., & Wold, T., p. 349.

(40) Prevalence of online sexual offenses against children in the USA, Finkelhor, D., Turner, H., & Colburn, D., p. 1.

Chapter 4: The responsibility of states to enact national legislation for protection

4.1 The responsibility of state to enact: national legislation for protection

States hold primary responsibility for shielding children's rights, including rights in cyberspace. As digital technology exponentially increasing in everyday lifestyles, states are required to enact countrywide legislation that safeguards minors from online harm. Such legal guidelines ought to provide the safety of kids from cyberbullying, online exploitation, and inappropriate content material, aligning with international standards which include the Convention on the Rights of the Children (CRC)⁽⁴¹⁾. National legal frameworks must set age restrictions, enforce privacy protections, and hold the technology businesses answerable for the content they host. Governments must set up clear policies for the collection and use of children's data, in addition to for the safety of personal information.

In addition, national regulation needs to undertake a child-focused and primarily rights-based approach that recognizes children as active rights holders in digital areas. Legal measures must balance safety with children's rights to freedom of expression, get access to information, and participation online. States must make it certain that laws remain bendy and adaptive to technological tendencies such as artificial intelligence, algorithmic choice-making, and emerging virtual systems. Regular legislative evaluation mechanisms are consequently essential to address evolving online dangers. Effective enforcement also calls for adequate institutional capacity, together with regulation enforcement organizations, judiciary members, and child protection authorities, capable of responding sensitively to cyber-associated damage⁽⁴²⁾. Furthermore, states should inspire cooperation among regulatory bodies and private actors through co-regulatory frameworks that toughen compliance even as keeping public oversight. Such comprehensive and forward-searching legislation is crucial to developing a steady digital environment that definitely safeguards youngsters' rights.

4.2. The role of international organizations (UNICEF, Interpol)

International businesses play a vital function in advancing the protection of children's rights in the online world by means of assisting states, coordinating cross-border efforts, and growing global norms. Among these actors, UNICEF and Interpol occupy particularly

(41) Regulating cyberspace for children: Reflections on the Qatari case, Badran, A., p. 1.

(42) Protecting Children's Rights in the Age of Digitalisation-Legal Implications for the Best Interests of the Child, Garayova, L., p. 1.

considerable positions because of their complementary mandates and international attain.

UNICEF focuses in general on normative guidance, advocacy, and ability building. It promotes a children-rights-based technique to virtual governance, emphasizing those children's rights offline ought to be similarly reputable online. Through studies, policy frameworks, and international tasks inclusive of children's online safety strategies, UNICEF assists declares in aligning national legal guidelines with international standards, especially the Convention on the Rights of the Child⁽⁴³⁾. It also works very closely with governments, civil society, and technology companies to promote secured digital environments, accountable data practices, and age-suitable digital layout. In addition, UNICEF supports virtual literacy and recognition packages, empowering youngsters, parents, and educators to navigate online areas safely and responsibly.

Interpol performs a more operational and enforcement-orientated role, in particular addressing serious formation of online damage which included child sexual exploitation, trafficking, and abuse facilitated via digital technology⁽⁴⁴⁾.

Given the transnational nature of the online world, countrywide regulation enforcement businesses regularly face jurisdictional and technical obstacles. Interpol addresses those challenges through enabling global police cooperation, intelligence sharing, and coordinated investigations. Its global databases, operational mission forces, and ability-building applications assist member states in figuring out offenders, rescuing sufferers, and dismantling on line criminal networks concentrated on children.

Together, UNICEF and Interpol make contributions to a complete global reaction by using combining prevention, safety, and enforcement⁽⁴⁵⁾. Their collaboration with states and private actors strengthens international efforts to make certain that children's rights are correctly safeguarded in an more and more interconnected digital world.

4.3 The responsibility of social media platforms (Meta, TikTok, YouTube, Instagram)

Social media sites play a valuable function in shaping children's digital experiences and therefore bring crucial duties in safeguarding minors' rights in the online world. Platforms operated with the aid of

(43) Child Protection in the Digital Ecosystem under the Convention on the Rights of the Child, Wahyu, M. A., p.1.

(44) Child Protection from a Human Rights Perspective: Organizational Efforts and Development Mechanisms, Sekik, L., p. 302.

(45) The Impact of Cybersecurity Laws on Child Safety in the Digital World: A Global Perspective. In Child Protection Laws and Crime in the Digital Era, Gonzalez-Torres, A. p. 107.

Meta, as well as TikTok, YouTube, and Instagram, are widely utilized by children and youngsters, making them key actors in the safety framework under global child rights law⁽⁴⁶⁾.

A primary responsibility of social media systems is to save kids' exposure to dangerous and age-irrelevant content. This calls for the development and enforcement of effective age-verification mechanisms, age-suitable default settings, and content classification structures. Algorithms that advocate videos, photographs, or interactions need to be designed with child protection as a concern, ensuring that minors aren't directed closer to violent, sexualized, or in any other case dangerous material. Platforms also take proactive steps to limit exposure to content that could negatively affect children's mental fitness, such as material promoting self-damage, intense weight-reduction plan, or dangerous social evaluation.

Beyond content material regulation, social media platforms have a clean responsibility to address dangers springing up from harmful online interactions. Cyberbullying, harassment, hate speech, and online grooming pose critical threats to children's mental being and safety⁽⁴⁷⁾. Platforms must therefore put money into sturdy moderation structures that integrate synthetic intelligence with trained human reviewers able to figuring out children-centric harms. Reporting and criticism mechanisms ought to be simple, children-friendly, and effortlessly handy, enabling minors and their caregivers to document abusive conduct without worry of retaliation. Prompt and obvious responses to such reviews are critical to ensure accountability and person trust.

Data safety and privacy constitute another center responsibility. Children are particularly at risk of the misuse of private data, and social platforms must ensure that minors' facts is accrued, processed, and saved according with the best requirements of safety. Targeted marketing primarily based on youngsters' online behavior raises extreme ethical and legal concerns and should be strictly constrained or prohibited⁽⁴⁸⁾. Privacy settings need to be set to the best stage by default for underage customers, and terms of carrier need to be communicated in clear, age-suitable language to allow personal knowledge.

Social media platforms have a broader duty to promote children's digital well-being. This includes supplying gear that support healthy utilization patterns, including display-time controls, content material

(46) Social media, law, meta, instagram, tiktok, and facebook: Unsafe for pre-adults?. Law, Meta, Instagram, Tiktok, And Facebook: Unsafe For Pre-Adults, Trautman, L. J., Foster, I. I., & Larry, D., p. 1.

(47) Examining the Issues of Social Media, Children, and Privacy, The Darker Side of Social Media: Consumer Psychology and Mental Health, Brown, M. K., Pounders, K. R., & Wilcox, G. B., p. 1.

(48) Recognizing children's rights in relation to the digital environment: challenges of voice and evidence, principle and practice, Third, A., Livingstone, S., & Lansdown, G., p. 325.

filters, and mental fitness sources. Platforms need to additionally collaborate with children protection businesses, educators, and civil society agencies to promote virtual literacy and online safety awareness. By integrating child rights considerations into platform layout, governance, and enforcement practices, social media groups can play a proactive role in growing more secure, more inclusive digital environments for kids.

4.4 The responsibility of gaming companies such as Roblox and Fortnite towards minors

Gaming agencies like Roblox and Fortnite play a full-size function in youngsters' digital lives and therefore endure heightened responsibility to protect minors using their platforms⁽⁴⁹⁾. As those video games attract big numbers of young users, organizations must ensure that their design, guidelines, and enforcement mechanisms prioritize kid's safety and well-being.

Roblox is widely utilized by youngsters, making child safety a vital responsibility of the platform. Roblox have to ensure sturdy age-verification measures and offer comprehensive parental controls that adjust chat features, accessing content and in game interactions. Given its user-generated content material version, Roblox has a heightened duty to check moderate games, avatars, and communications to save the exposure to hazardous material, cyberbullying, or grooming⁽⁵⁰⁾. Transparent policies on virtual currencies and in-game purchases, such as spending limits and parental consent mechanisms, are important to defend minors from monetary exploitation and ensure a secure digital play environment.

Fortnite draws a large adolescent user base and actively shield minors' online experience⁽⁵¹⁾. The platform should preserve strict privateness-by-default settings and strong parental manage tools to control communique functions and display time. Effective moderation of voice and textual content chat is essential to cope with harassment, abusive language, and irrelevant interactions. Fortnite has to additionally make certain transparency concerning in-sport purchases and prevent exploitative monetization practices related to minors. Additionally, the platform has a duty to promote wholesome gaming behaviors via encouraging balanced usage and presenting assets that help kids' intellectual well-being.

(49) Real risks of digital gameplay: A policy perspective on protecting children and adolescents in online gaming environments, Al-Ahmadi, H. A., p. 13.

(50) AI Moderation and Legal Frameworks in Child-Centric Social Media: A Case Study of Roblox, Chawki, M., p. 29.

(51) Evolution of Business Models in the Gaming Industry in the Context of Social Media Development, Kwiatkowska, K., p. 231.

4.5. Monitoring and complaint mechanisms

Effective monitoring and complaint mechanisms are crucial for ensuring that children's rights in cyberspace are respected and upheld. Governments, international corporations, and technology corporations have to paint collectively to set up reachable and effective structures for detecting on line dangers and coping with complaints of online damage⁽⁵²⁾. These mechanisms need to permit youngsters, parents, and educators to report incidents of cyberbullying, exploitation, or inappropriate content material in a well-timed and private manner.

Governments play an important function in supplying a legal framework for tracking on line systems and organizing groups or bodies accountable for investigating and responding to complaints. National regulatory authorities need to be empowered to supervise the enforcement of child protection legal guidelines in the virtual space, making sure that corporations are held answerable for their moves. These bodies need to also provide steerage on how youngsters and mother and father can navigate the digital environment competently.

Technology organizations have to enforce internal tracking systems, consisting of AI equipment and human moderators, to discover harmful content material and behaviors, inclusive of cyberbullying or grooming⁽⁵³⁾. In addition, they have to make it smooth for users to record beside the point content, with clear instructions and spark off responses to complaints. It is also crucial that corporations offer feedback to complainants, ensuring transparency within the method and demonstrating duty.

Lastly, global cooperation is prime to creating global tracking systems that could deal with cross-border problems of online damage. Organizations which include UNICEF and Interpol, in collaboration with tech groups and governments, can coordinate efforts to perceive and combat global traits in online abuse.

4.6 The Role of Relevant Saudi Authorities in Protecting Children in Cyberspace

Several national institutions play a central role in implementing legal protection for children in the digital environment, including:

1. The National Cybersecurity Authority, which develops national cybersecurity strategies and protection standards.
2. The Public Prosecution, which is responsible for investigating and prosecuting cybercrimes against minors.

(52) A data-driven customer complaint management model for residential building companies, Bazzan, et al., p. 1381.

(53) The Regulation of Cyberbullying and Online Harassment: Analyze the Regulation of Cyberbullying and Online Harassment, Javed, et al., p. 63.

3. The Saudi Data and Artificial Intelligence Authority (SDAIA), which oversees data governance and promotes the safe use of digital technologies.

These institutions also cooperate with educational and awareness programs aimed at enhancing digital literacy, supporting parents, and promoting safe online behavior among children.

4.7 Chapter summary

This chapter examines the shared duty of states, international corporations, social media structures, and gaming organizations in shielding children's rights in cyberspace. It emphasizes criminal regulation, global cooperation, platform responsibility, child-centered design, effective tracking, and grievance mechanisms as needful equipment for protecting minors in the virtual surroundings.

Chapter 5: Assessing Challenges and Ways to Improve

5.1 Assessing the Adequacy of Legal Protection in the Saudi System

Saudi Arabia has made significant progress in developing a legislative framework that protects children from cyber risks and reflects the principles of the Convention on the Rights of the Child. The adoption of cybersecurity regulations, data protection legislation, and child protection mechanisms demonstrates a clear commitment to international standards.

However, certain gaps remain, particularly in relation to: explicit regulation of children's digital privacy, protection against the commercial exploitation of children's data, specialized procedural rules for investigating digital crimes involving minors.

The implementation of General Comment No. 25 on children's rights in the digital environment provides an important interpretative guide for further legislative development. Strengthening multi-sectoral cooperation and continuously updating legal provisions are essential to ensuring comprehensive and effective protection.

5.2 Current gaps in international conformity

In the current era, significant gaps exist in international conformity regarding the rights of children in cyberspace. Firstly, there are fragmented legal standards in various countries. The legal laws that are related to age vary widely. There are a lot of countries which have set different ages for the digital consent, along with the inclusion of online protection and rights. Further, there are outdated or incomplete international legal frameworks. According to Naderi, (2024), most of children have easy access to unethical resources, and there is an addiction

to cyberspace. The concept of social isolation is common, along with generational gaps and a reduction of family communications⁽⁵⁴⁾. There is weak cross border enforcements and cooperation. The mutual legal assistance which is existing is remaining slow and is inconsistent. Not only that, Livingstone et al., (2024) also showed that cybercrimes are targeting children, which usually span jurisdictions, The gaps do have international instruments whose use is basically an outdated term. There are modern concepts which are arising and are limiting the alignment with the best practices around the globe⁽⁵⁵⁾.

Under these circumstances, the rights of children in the digital environment are hinging on where the platform operates or where the users are located⁽⁵⁶⁾. There are limited mandatory platforms that have accountability standards. The tech companies have no such obligation of imposing uniform standard, which is a part of the current gap for international conformity. There is no proper implementation and monitoring. The overall mechanism is weak because there is no such global body for child centric. There are a lot of countries which are lacking the resources or cybercrime units. Hence, the rights remain theoretical in most of the regions. According to Livingstone et al., (2024), the rights of children need to be considered, especially in link with the human rights agenda, and so most of the users might have to undergo age verification for children to be treated fairly and protected online⁽⁵⁷⁾. Also, sometimes the policies cannot reflect the real online needs and experiences of children⁽⁵⁸⁾. It is necessary to focus on children and their participation in the case of digital governance.

5.3 Considering specific uses of children's digital rights

There is a huge importance for understanding the digital rights of children and how they are using them for communication, learning, participation, entertainment and identity formation. According to Undheim (2022), digital technologies are being embedded into the pedagogical practices of children. The specific use includes online classrooms, apps which support e-learning, educational games and an AI tutor. However, the issue lies in the lack of global standards on the profiling of children and data retention⁽⁵⁹⁾. The next usage is of social media and online communication that helps in social networking, content

(54) Cyberspace harms children. International, Naderi, H., p. 58.

(55) Children's rights and online age assurance systems: The way forward, Livingstone, et al., p. 721.

(56) Securing tomorrow's generation: an approach utilising machine learning models for children's online safety, Pir, et al., p. 1.

(57) Children's rights and online age assurance systems: The way forward, Livingstone, et al., p. 721.

(58) Governments' duty regarding children's rights in light of the Convention on the Rights of the Child (CRC), Sadat, S. A. S., p. 22.

(59) Children and teachers engaging together with digital technology in early childhood education and care institutions: A literature review, Undheim, M., p. 472.

creation, messaging apps and online communities⁽⁶⁰⁾. The children do have an attraction to gaming and virtual worlds. There are online multiplayer games, in-game purchases and virtual worlds. The aspects of privacy, data and surveillance do come into the role. It includes the usage of the apps, wearables, smart devices and AI-based tools for monitoring.

The usage does have the inclusion of participation and civic engagement, which includes online activism, youth advocacy platforms and digital forums. International policymaking hardly includes children, even though there is a growing online presence. According to Limone & Toto, (2021), even during the situation of the pandemic, the usage of technology, especially the internet, had positive and negative aspects⁽⁶¹⁾. It helped children in terms of following the trends of the current times. Along with this, there was an increase in the skills, creativity and cognition in children⁽⁶²⁾. On the negative aspects, there were online abuses and exploitation, which included the sharing of images, live streaming and social interactions. Hence, improvement is needed in the digital rights of children.

5.4 Legal Protection

According to Khisamova, (2023), the concept of legal protection is the right of children in cyberspace which involves a combination of the international convention and some of the robust national laws. This is addressing some of the online risks like privacy violations, cyberbullying and exposure to harmful content. The aim lies in creating a safe and empowering digital environment. Also, there is accountability for the offenders and the platforms. According to Khisamova, (2023), the internet is having a strong influence on the development of children, which is not addressed by the legislator and is staying outside the regulatory environment. The engagement of the child with digital technologies does have stronger legal protections for safeguarding their online rights⁽⁶³⁾. The rights are usually protected by a combination of regional regulations, international conventions and some of the national laws. In the case of the legal framework, the UN Convention on the Rights of the Child is applied both online and offline⁽⁶⁴⁾. It helps in managing the rights of privacy, rights of access to information, freedom of expression, right to education and development and right to protect from abuses and exploitation.

(60) Psychological and emotional effects of digital technology on children in the COVID-19 pandemic, Limone, P & Toto, G.A., p. 1.

(61) Psychological and emotional effects of digital technology on children in the COVID-19 pandemic, Limone, P & Toto, G.A., p. 1.

(62) Social work and child protection for a post-pandemic world: The re-making of practice during COVID-19 and its renewal beyond it, Ferguson, et al., p. 5.

(63) Children and the Internet: Cyber Threats Sorts and Ways of Protection, Khisamova, R.V., p. 122.

(64) Rights of children, OHCHR. Retrieved from: <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>

The digital environment is not just designed for children, but it plays an important role in their lives in various forms. The children are reminded of the safety measures by the good online practices, along with having awareness of the social behaviour patterns. The international cybercrime and safety instruments address the online exploitation sexually and abuse. There is inclusion of child sexual abuse material. Lastly, there is cross-border cooperation in the investigations of cybercrime. However, as Yusrizal, (2024) argued, not all the countries are signatories. The enforcement is slow in most of the jurisdictions. In the case of the regional legal protection, there is the Digital Services Act, which imposes obligations on the platforms for the protection of minors from any kind of harmful content. However, for this purpose, there is a need for risk assessment and safer default settings⁽⁶⁵⁾. The laws are also required by the technology companies that implement the age-appropriate designs⁽⁶⁶⁾. There is a prevention of child-targeted advertising. There is also the removal of the harmful content and reporting of child exploitation material. Overall, the main challenges to legal protection are the fragmented legal standards around the world. There is limited child participation in the digital policies. The rapid change in the technologies is somehow outpacing the law-making. The consistency can be managed by a unified global framework. It includes the strengthening of international cooperation.

5.5 The future of digital security for children

According to Ferguson, Kelly & Pink (2022), it is crucial for the improvement and enhancement of new digital security practices in the future. It is enabling the workers to enhance the lives of the service users. The children are having increasing engagement with the digital platforms for socializing, learning and entertainment⁽⁶⁷⁾. Hence, it is crucial to focus on online safety. The future can be shaped by technological innovation and sharing responsibility among the government. Governments all over the world are moving towards stricter regulations on digital safety with a focus on child protection⁽⁶⁸⁾. The future policies are child-friendly, which emphasizes the protection of data, limits the targeted advertising and helps in cooperation with international borders on cyber-threats.

Children have an association with privacy and security threats like password hacking, password abuse, phishing activities and a few

(65) Legal Protection of Citizenship of Children Born from Mixed Marriages, Yusrizal, M., p. 102.

(66) Psychological and emotional effects of digital technology on children in the COVID-19 pandemic, Limone, P & Toto, G.A., p. 1.

(67) Social work and child protection for a post-pandemic world: The re-making of practice during COVID-19 and its renewal beyond it, Ferguson, et al., p. 5.

(68) Psychological and emotional effects of digital technology on children in the COVID-19 pandemic, Limone, P & Toto, G.A., p. 1.

others⁽⁶⁹⁾. However, parents must manage the issues in the future by introducing advanced technologies like artificial intelligence and machine learning for the protection of children. Such technologies do have the capability of detecting the harmful content and the inappropriate interactions in real time. Apart from this, the concentration lies on digital literacy and cyber-awareness, which is the future of digital security⁽⁷⁰⁾. The schools are expected to have an integration of cybersecurity awareness and ethical internet. The children need to be taught to manage the settings of privacy and recognize the online threats for navigating the digital world safely. For the future, ethical designs need to be increased by the technological companies. The strategies of future digital security do have inclusion of mental and emotional protection. There needs to be emotional support resources and screen-time balance tools.

(69) Securing tomorrow's generation: an approach utilising machine learning models for children's online safety, Pir, et al., p. 1.

(70) State-Civil Society Relations: The Importance of Civil Society for the Implementation of the United Nations Convention on the Rights of the Child, Powell, R. & Muddiman, E., p. 172.

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