

THE ROLE OF CYBERSECURITY IN PROTECTING THE PRIVACY OF THE ALGERIA FAMILY TOWARDS BUILDING A MODEL FOR SOCIAL REGULATION

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Abstract:

Cyber regulation of family social control is deemed to protecting privacy and social interactions within the family using technology and smart applications. This can etnail methods for utilizing cyberspace and social media within the family, as well as addressing cyber challenges such as internet addiction and cyberbullying. Families face numerous challenges in the digital age, including managing the time family members spend online. The Algerian government plays a vital role in enhancing family-specific social control regarding cybersecurity by enacting mandatory legislation and policies to ensure information safety and combat cybercrime. Accordingly, our research paper tends to shed light on: models of family social control and the legal stance of the family in cyberspace as defined by Algerian legislation.

Keywords: *Social control models, family cybersecurity protection, Algerian legislation*

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Introduction:

In an era where digital transformation has redefined nearly every aspect of human interaction. The family unit, as a fundamental pillar of society, finds itself navigating new dimensions of connectivity and engagement. The cyberspace, which involves all virtual and internet-based platforms, has become a ubiquitous presence in the daily lives of individuals across the globe. It provides families unprecedented opportunities to communicate, learn, share, and grow collectively. However, these opportunities are agglutinated by a plethora of challenges that require careful attention. While technology bridges geographical divides, enhances family bonds through instant communication, and provides platforms for learning and development, it also exposes families to cyber threats, privacy concerns, and the potential erosion of traditional values due to digital influences.

The concept of family communication and participation through cyberspace is a variegated one. It outstrips beyond mere connectivity to encapsulate the strategies and dynamics through which families engage in meaningful discourse. Plus, it provides mutual support, protect their members, and navigate the complex realm of digital interactions. Cybersecurity, digital literacy, responsible internet usage, and the management of online risks become paramount as families strive to maintain their cohesion in the virtual world. This model of interaction emphasizes the need for families to cultivate an understanding of digital tools, adopt effective monitoring mechanisms, and leverage online resources to enhance their relationships and safeguard their well-being. Moreover, this paradigm highlights the pivotal role of parents or guardians as facilitators and protectors who guide their children through the challenges and benefits of cyberspace.

This paper will explore how families utilize communication and engagement models within cyberspace to foster relationships, promote online safety, and preserve cultural and social values in an increasingly interconnected digital age. It will examine the evolving strategies adopted by families to balance the benefits and potential dangers of cyberspace, the tools available to ensure effective digital

participation, and the global context within which these dynamics unfold.

Chapter One: Cybersecurity Models and Family Social Control

Cyber models of family social control count on a plethora strategies and practices aimed at organizing and guiding family members' behavior in cyberspace. These models may differ based on the needs and dynamics of each family, with some common models including:

First: Electronic Monitoring and Active Parental Guidance Model

Cyber parental control refers to a set of measures and techniques used by parents and educators to ensure their children's safety when using technology and social media. These measures include controlling the content that children can access, managing the time spent in cyberspace, monitoring online activities, and providing guidance on using smart systems safely and responsibly. The main objective of cyber parental control is to protect children from online risks such as sexual harassment, bullying, and exposure to inappropriate content. Parents can also collaborate with social upbringing institutions for support and guidance on monitoring students' online activities and offering advice to enhance digital safety.

These networks were established in order to gather some people interested in specific subjects, such as those interested in medicine and engineering, and networks interested in books and libraries, such as : Library thing, or networks that participated in distance education for some schools and different cultural networks

1. Parental Control Applications

These entail tools and applications that enable parents to monitor and restrict their family members' online activities, set limits on content and apps, and use built-in parental controls on devices. Some applications help monitor children's online browsing. Examples encompass Wi-Fi Baby Monitor, which connects two devices on the same Wi-Fi network for child monitoring, Pormi, which allows for noise control to prevent unnecessary alerts, and Baby Monitor 3G. On top of that, Baby.com and At Home Camera provide similar functionalities.¹

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This model highlights parents' role in providing guidance and supervision to regulate family members' online behavior through available electronic applications. Parents set digital boundaries, establish rules, and raise awareness about internet dangers. Effective parental supervision ensures responsible and safe digital practices. In this stance, the measures and tools used by families to achieve cyber social control include the following:

A- Education and Awareness: It entails offering family members information and guidance on safe and responsible internet use, explaining potential risks, and addressing them. Information technology, through diverse interactions like computers, communication tools, and digital video, has greatly enhanced educational and e-learning processes.²

Second: Time Management Model for Family Privacy Protection in Cyberspace

Time management in cyberspace entails procedures and techniques for children and family members to organize and efficiently utilize their digital time. The timing for smart device use depends on factors like family members' ages, individual responsibilities, and family values. Guidelines might include:

1. Allocating specific times for homework or study, allowing the use of electronic devices solely for educational purposes.
2. Enforcing a "digital curfew" by setting aside devices at least an hour before bedtime.
3. Planning regular family activities or outings with no electronic applications to foster quality time and bonding.
4. Encouraging outdoor play or physical activities without electronic devices to enhance physical health and social interactions.
5. Ensuring an environment free of distractions during these times.
6. Instituting designated weekends or days where the family collectively limits or abstains from electronic use.
7. Respecting individual needs and preferences for device use, while promoting moderation and balance.
8. Leading by example through adhering to the established digital guidelines, as children often mimic parental behavior.

9. Holding open family discussions on the importance of screen time limits and the rationale behind them, allowing for feedback and necessary adjustments.

10-Additionally, protective applications for children during their internet use may include wearable devices linked to smartphones, alerting parents when conditions like posture, breathing, or temperature change. This supports tracking children's health and behavior patterns online.³

Families can select and consistently apply models suitable for their unique needs to achieve digital safety and effective online communication within the family. Often, children's activities extend beyond societal and cultural norms, with many programs being foreign, translated, or dubbed, and, regrettably, conveying values incompatible with local traditions.⁴

Third: The Model of family communication and engagement through cyberspace

This model relies on collaboration among family members in establishing rules and making collective decisions about internet use, fostering shared responsibility and mutual respect. The model emphasizes encouraging cooperation and partnership among family members, where negotiation and conflict resolution skills are developed, and common rules for internet use are established.

Cooperation and participation in the digital space can enhance family communication, strengthen family bonds, and facilitate shared activities and experiences. To foster family cooperation and participation in the digital domain, regardless of physical distance, active engagement, communication, and creativity through digital platforms can strengthen family ties and nurture a sense of belonging and teamwork in the digital age, especially among Algerian families (nuclear and extended).

The Algerian family, like many families worldwide with their customs, traditions, and norms, is increasingly engaging in cyberspace in various ways. The digital space has become an integral part of daily life for many Algerians, affecting how families communicate, access information, and interact with the world.

Here are some ways Algerian families interact with cyberspace:

A- Communication through electronic platforms: The digital space offers numerous platforms for Algerian families to communicate with one another, especially when separated by distance. Social media platforms such as Facebook, WhatsApp, and Instagram are commonly used to stay connected, share updates, and exchange messages and photos, especially during religious holidays such as Eid al-Fitr and Eid al-Adha, when greetings are exchanged.

According to a global report, Algeria ranks fourth among Arab countries with approximately four million Facebook users. In June 2016, the number of internet users reached approximately 15,000,000, representing 36.8% of the population, with around 15 million using Facebook.⁵

B- Providing training and recreational data through cyberspace: The internet offers Algerian families access to a wealth of information on various topics ranging from education and health to news and entertainment. This enables family members to stay informed and educated on different matters. The digital space has revolutionized education in Algeria, offering access to online courses, educational videos, and resources that complement traditional classroom learning. Algerian families can utilize these online resources to support their children's education or achieve their educational goals. Meanwhile, online streaming services, games, and social media provide entertainment and relaxation avenues for Algerian families. Whether watching lessons and sermons, cultural programs together, playing educational games online, or sharing funny videos, the digital space offers countless entertainment options. Thus, the family's role in protecting its members from online blackmail is crucial by strengthening cybersecurity. Studies have recommended raising awareness of cybersecurity, reinforcing family bonds, and providing continuous support to avoid falling victim to online extortion.⁶

C- Protection of e-commerce services:

Protecting intellectual property rights is one of the greatest challenges countries face in achieving economic and social growth as they enter an era where information and knowledge contribute to shaping and strengthening their economic structures. For e-commerce to succeed, intellectual property protection programs must be adopted at various

levels, such as improving the legislative framework for intellectual property protection, enhancing institutional capacities, and raising awareness at the national, institutional, and individual levels.⁷

The emergence of e-commerce platforms allows Algerian families to shop for a wide range of products and services online, from groceries and clothing to electronics and household items. This convenient shopping method is becoming increasingly popular among Algerian consumers. Therefore, the e-commerce landscape in Algeria is gradually growing, although it may not be as advanced as in some other countries. Nevertheless, there are platforms and websites Algerian families can explore to meet their e-commerce needs, including:

1. Safex Algeria: The Algerian Exhibition Company (Safex) hosts an online market where Algerian businesses can showcase their products. It is a good platform for exploring local products and supporting Algerian businesses.

2. Souk Dzair: **Souk Dzair** is an online marketplace specifically designed for Algerian consumers. It offers various categories such as electronics, fashion, home appliances, and more.

3. Ouedkniss: Although not exclusively an e-commerce platform, Ouedkniss is a popular classified ads website in Algeria where individuals and businesses can buy and sell a wide range of products, including electronics, vehicles, real estate, and services.

4. Facebook Marketplace: Many Algerians also use Facebook Marketplace to buy and sell goods locally. It is a convenient platform for connecting with sellers in your area.

When using any e-commerce platform, it is essential to practice safe online shopping habits, such as verifying the seller's credibility, reading product reviews, and ensuring secure payment methods. Additionally, always be cautious when sharing personal and financial information online.

C-Mechanism for Protecting Individuals' Privacy from Electronic Violations

There are many forms of electronic privacy violations of individuals, varying according to the different aspects of the right to privacy. Examples of such violations include, but are not limited to:

First. Publishing and Announcing Private Acts and Matters: This involves disseminating personal information about an individual through various media and communication channels without their explicit or implicit consent, as well as manipulating or deleting personal data by unauthorized persons.

Second. Violating Privacy through Modern Surveillance Methods: This includes eavesdropping, recording with modern technologies, and electronic monitoring through satellites and digital cameras, often accessed via mobile phones.

Third. Data Collection by Institutions: Many public and private institutions and companies collect extensive data about individuals, including their financial, health, family status, and social habits. This data is stored, processed, and transmitted using computers and communication networks, increasing the chances of accessing this data easily, thus violating individuals' privacy and their desire to keep such information confidential.⁸

4. Family Communication Model in Cyberspace

Communication with educational institutions is a crucial step in supporting cyber family regulation and enhancing awareness about internet safety and appropriate digital behavior. There are several ways to engage with educational institutions:

1. Family Meetings with Teachers or Educational Counselors: Arranging family meetings with teachers or educational counselors to discuss cyber safety issues and ways to support it at home, emphasizing the activation of different socialization institutions such as families, schools, and mosques.⁹

2. Digital Awareness Workshops and Seminars: Utilizing workshops and awareness sessions about digital cyber safety and appropriate digital behavior. These events can provide families with valuable information and advice on protecting their children, encouraging safe internet use, and taking advantage of educational programs and initiatives offered by social institutions to enhance digital awareness and cyber safety.

3. Communication via Online Platforms and School Events: Identifying available resources through email or educational institutions' websites, such as articles, tips, and parent guides to

enhance cyber family regulation. Families can also participate in school events and activities focused on digital awareness and cyber safety, such as open family days or educational activities dedicated to informing students and parents about internet safety.

Strengthening cyber family control within Algerian families requires navigating cultural norms and values while facing challenges posed by the digital age. Below are some culturally sensitive methods:

4. Preserving Algerian Family Values: It is essential to recognize the significance of family authority and hierarchy within Algerian households, promoting educational and religious values and open communication between parents and children without restrictions. Parents' roles as guides and mentors in navigating the "blue space" (cyberspace) and available smart devices in the home should be highlighted. Emphasizing family control in cyberspace within a broader cultural context includes:

1. Encouraging family discussions about adapting cultural norms to the digital age while preserving core values related to respect, responsibility, and privacy.

2. Enhancing critical thinking skills among children to help them critically evaluate online content.

3. Teaching how to recognize false information, scams, and other online threats, enabling them to make informed decisions independently.

Chapter Two: Legal Status of Algerian Family Privacy Protection in Cyberspace

The Algerian legislator is likely to prioritize enacting laws to protect family privacy and personal data security for individuals. Algerian legislation on cyber protection typically focuses on protecting individuals and families from electronic threats and ensuring responsible technology use. Below are some fundamental perspectives and measures those Algerian legislators may adopt. Additionally, there is a right to protection from the collection and exploitation of personal data in ways that affect personal life. Personal Data Collection as a New Form of Intrusion Data collection refers to the use of computers to gather and process personal data related to individuals' private lives. This has had undeniable positive effects,

particularly in the state's organization of individuals' economic, social, and other affairs, creating what is known as information banks.¹⁰

First: Protecting the Privacy of Minors from Cyber Threats

The analysis of Algerian cybercrime laws from a social perspective involves studying how these laws intersect with the country's social structures, customs, traditions, and dynamics to combat electronic threats targeting families. The Algerian legislator may have enacted comprehensive cybercrime laws that define various cybercrimes, such as hacking, identity theft, online harassment, and cyberbullying, and impose penalties on offenders. Furthermore, specific provisions related to the electronic environment criminalize certain acts to protect families from inappropriate content, even indirectly. For instance, Law 07-18, concerning the protection of natural persons in the processing of personal data, offers such protection.¹¹

By examining Algerian cybercrime laws through a family and social lens, sociologists can gain insight into how these laws are shaped and how they reflect broader social dynamics and inequalities within Algerian society. This context can enrich discussions on policy reforms and legal measures aimed at addressing cybercrimes within families and enhancing cyber security in Algeria.

Recognizing minors' vulnerability to online threats, Algerian legislation may include specific provisions to protect minors online, such as regulations requiring age verification for certain online services, restrictions on explicit content, and measures to prevent online grooming and exploitation. A study published on the website of the "Arab Council for Childhood and Development" discusses such topics.¹²

Although the Algerian legislator delayed enacting child protection laws until 2015, applying Articles 334 to 337 related to public decency violations and Articles 42% to 49% regarding inciting minors to debauchery and prostitution from the Penal Code, later laws addressed various forms of child abuse, particularly sexual exploitation in all its forms, and acts related to pornography and child trafficking through Article 143.¹³

Laws criminalizing the incitement of minors to cybercrime demonstrate the Algerian society's awareness of the importance of

protecting minors from online exploitation and harm. These laws likely reflect broader cultural norms and values concerning the sanctity of children and the responsibility of protecting them from harm in cyberspace.

The current era's information surge necessitates equipping scientific police forces to combat crimes and violations on websites and online networks. Advances in modern communication technology require evolving classical methods of investigation to match the rapid scientific developments in telecommunications. This means providing law enforcement with experts and modern information technology tools to facilitate intervention and detection of all types of violations.³ Additionally, in Article 141, the legislator explicitly mentions communication tools, stating that anyone exploiting a child through any form of communication for matters that contravene public morals and order will be punished. This indicates significant progress by both Algerian and Emirati legislators in protecting minors from internet dangers through legal provisions that punish harm inflicted on children via the internet.¹⁴

Algeria has established a legal framework to address family-related cybersecurity incidents affecting families and individuals. This framework can include protocols for reporting cybercrimes, coordinating incident response efforts among relevant social institutions, and providing support for victims of cyberattacks at the individual, family, and community levels, acknowledging the cross-border nature of cyber threats.

On an international level, the Algerian legislator also prioritizes cooperation on family cybersecurity issues. This could involve participation in regional or global initiatives, sharing best practices with neighboring countries, and collaborating in efforts to combat cybercrimes and enhance online safety for families worldwide.

Second. International Legal Protection for Families in Cyberspace

It is common for governments, including Algeria, to engage in electronic cooperation with tech companies and international organizations to enhance the online safety of families and children. Such cooperation often involves various initiatives aimed at

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promoting online safety, combating cyber threats, and protecting vulnerable users, particularly minors, from harmful content and exploitation. Here are some ways the Algerian government can engage in this cooperation:

A. Internationally Available Family Legal Protection Mechanisms

Legal mechanisms for protecting families in cyberspace are crucial for safeguarding their privacy, security, and well-being online.

Although specific laws and regulations may vary from country to country, several international frameworks and agreements provide a basis for protecting families in the digital space. Here are some key mechanisms:

United Nations Convention on the Rights of the Child (UNCRC): This comprehensive international treaty defines children's rights, including their rights to privacy, protection from exploitation, and access to information. It provides a broad framework for governments to develop policies and laws to protect children online.

Council of Europe Convention on Cybercrime (Budapest Convention): This is the first international treaty aimed at addressing crimes committed via the internet and other computer networks. Its goal is to harmonize national laws and improve international cooperation in combating cybercrimes, including crimes affecting families such as online harassment, child exploitation in pornography, and online grooming.

European Union General Data Protection Regulation (GDPR): While not entirely international, the GDPR has extraterritorial reach and applies to any organization processing the personal data of individuals in the European Union. It includes provisions to protect minors' privacy and data, requiring parental consent for processing the personal data of children under 16.

International Telecommunication Union's Child Online Protection (COP) Initiative: This initiative aims to create a safe online environment for children and young people globally. It provides guidance to governments, industry, and other stakeholders on policies and practices to protect children online.

Global Alliance Against Child Sexual Abuse Online (GA): Established by the International Centre for Missing and Exploited

Children (ICMEC), this alliance brings together tech companies, governments, and NGOs to eliminate online child sexual abuse material. It promotes the development and adoption of technological solutions and best practices to prevent the distribution and consumption of such content.

Governments may collaborate with tech companies to develop and implement tools and technologies that enhance online security and protect families and children. International organizations play a crucial role in reinforcing the legal and practical measures to safeguard families in cyberspace, encouraging cross-border cooperation, and fostering the adoption of effective strategies to create a safer digital environment for all family members.

Conclusion

In conclusion, the model of family communication and participation through cyberspace offers a compelling glimpse into how technology is reshaping the fabric of social life. Families are both empowered and challenged by their interactions in this expansive digital realm. On one hand, cyberspace allows for continuous engagement, knowledge sharing, and mutual support, regardless of physical boundaries. On the other hand, it poses risks that threaten privacy, security, and even the cohesiveness of the family unit if not carefully managed.

References

1. Ammar Khlaifia, The New Digital Parenting and its Role in Protecting Children's Digital Rights: An Analytical Theoretical Study, Al-Risalah Journal for Media Studies, Vol. 05, Issue 04, 2021.
2. Ben Khrouur Khireddine, The Challenge of E-Learning in Algerian Schools, Empowerment Social Journal for Social Service and Humanities Studies, 2020, p. 159.
3. Mascheroni, Giovanna. Ponte, Cristina. Jorge, Ana. (Digital Parenting: The Challenges For Families In The Digital Age. Nordic Information Center For Media And Communication.) 2018). Browsed In (15/05/2021) On The Following Link <https://www.researchgate.net/publication/328957814>
4. Barakat, Wagdy, Abdul Moneim, Tawfiq, Children and Virtual Worlds: Hopes and Dangers, The Childhood in a Changing World Conference, Bahraini Child Development Society, 2009, p. 17.

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5. Walida Hadadi: "Cyberspace and the Crisis of Moral Values in Arab Societies: Social Networks as a Model," *Al-Haqiqa Journal*, 2018, p. 17.
6. Mahdi, Souad Hosni Abdullah: "Awareness of Cybersecurity, Intellectual Fascination, and Family Quality of Life as Predictors of Online Extortion among Adolescent Internet Users," *Journal of the Faculty of Education*, 2022, p. 45.
7. Saeed Ziouch: "E-commerce and Mechanisms for Protecting Algerian Consumer Privacy," *Herodotus Journal for Humanities and Social Sciences*, Issue 25, Algeria, 2023, p. 7.
8. Tariq Othman, Child Protection from Exploitation in Internet Pornography in Algerian Legislation, published in *Al-Mufakkir Journal*, Issue 13, p. 417
9. Law 07-18, dated June 10, 2018, concerning the protection of natural persons in personal data processing, Official Gazette No. 34.
10. Tariq Othman, Child Protection from Exploitation in Internet Pornography in Algerian Legislation, published in *Al-Mufakkir Journal*, Issue 13, p. 417
11. Law 07-18, dated June 10, 2018, concerning the protection of natural persons in personal data processing, Official Gazette No. 34.
12. The Arab Council for Childhood and Development is a non-governmental Arab development organization with a legal personality working in the field of childhood. It was established in 1987 by the initiative of Prince Talal bin Abdul Aziz based on a recommendation from the Childhood and Development Conference held in Tunisia in 1986 under the auspices of the Arab League..
13. Refer to the provisions of Article 143 of Law No. 15/12 dated July 15, 2015, concerning child protection in Algeria
14. -Abdel Fattah Bayoumi El-Hegazy, Juveniles and the Internet: An In-Depth Study on the Effect of the Internet on Juvenile Delinquency, University Thought House, Alexandria, 2004, p. 3034-Hassina Sharon, Child Protection from Internet Dangers, Cyberspace or Virtual Space, *Journal of Legal Studies and Research*, Issue 9, 2018, p. 42.