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# FROM THE BLACKBOARD TO THE VIRTUAL CLASSROOM: CHILDREN'S RIGHTS TOMORROW

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## Abstract

This research article explores the transformation of educational environments from traditional physical classrooms to virtual spaces, emphasizing the evolving framework of children's rights in digital education. It critically examines the implications of this shift on access, equity, privacy, safety, and participation, grounding the analysis in international legal standards such as the United Nations Convention on the Rights of the Child (UNCRC) and its General Comment No. 25 on children's rights in the digital environment. The article reviews legislation and policy reforms in advanced countries and emerging economies, with a detailed case study on Uzbekistan's progressive legal and institutional responses to protecting children's rights amidst digital education advances. Moreover, it integrates expert perspectives to highlight the responsibilities of policymakers, educators, and technology developers in creating inclusive, safe, and empowering virtual learning environments. The study contributes to interdisciplinary scholarship by synthesizing human rights frameworks with pedagogical innovation and digital governance, offering practical recommendations for safeguarding children's rights in the evolving educational landscape.

**Keywords:** Children's rights; digital education; virtual classrooms; United Nations Convention on the Rights of the Child; digital privacy; online safety; educational equity; Uzbekistan; digital literacy; data protection; child



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participation; digital governance; human rights in education; international legal frameworks; virtual learning environments.

## **Introduction**

The landscape of education is experiencing a profound transformation, marked by a rapid and widespread shift from conventional classroom instruction to virtual learning environments. This paradigm shift has been driven by unprecedented technological advancements alongside global events such as the COVID-19 pandemic, which collectively catalyzed an unprecedented reliance on digital platforms to sustain educational continuity. As physical blackboards give way to digital screens, the nature of educational delivery, participation, and engagement is fundamentally reconfigured, presenting novel opportunities and challenges alike.

Amidst these sweeping changes, a critical consideration emerges: the protection and enhancement of children's rights within the evolving educational paradigm. Children's rights, as enshrined in international legal frameworks such as the United Nations Convention on the Rights of the Child (UNCRC), encompass not only the right to education but also interrelated entitlements including access, equity, privacy, safety, and participation. The transition to virtual classrooms complicates these rights, raising pressing questions about digital access and inclusion, data protection, cyber safety, and the quality of learning experiences afforded to all children irrespective of socio-economic or geographic barriers.

This research article seeks to critically examine the implications of the digital shift for children's rights in education, exploring both risks and opportunities inherent in virtual classrooms. It aims to contribute to scholarly discourse by providing an interdisciplinary analysis that situates educational technology within human rights frameworks, thereby informing policy, pedagogical approaches, and the development of regulatory safeguards. In doing so, it underscores the imperative for stakeholders—including educators, policymakers, technology developers, and civil society—to collaboratively ensure that the future of education is not only innovative but also just, inclusive, and rights-respecting.



This inquiry is particularly significant as digital education becomes a permanent fixture rather than an emergency response, necessitating a forward-looking approach to guarantee that children's rights are preserved and promoted in tomorrow's classrooms. By addressing these challenges proactively, the educational community can harness the benefits of virtual learning environments while safeguarding fundamental rights, ultimately shaping an equitable and empowering educational future for all children.

### **Literature Review**

Scholarship on children's rights in education has long emphasized the importance of access, equality, and protection of children's best interests. Traditionally, educational legislation focused primarily on the physical classroom and tangible learning environments. However, with the rapid rise of digital technology, the scope of these rights has expanded decisively to include the digital realm. A pivotal development in this area is the UN Committee on the Rights of the Child (UN CRC) General Comment No. 25 (2021), which explicitly recognizes that "children's rights apply in the digital environment just as in offline settings" and must be "respected, protected and fulfilled" in virtual classrooms and online spaces, particularly concerning access (Article 28), privacy (Article 16), information rights (Articles 13 and 17), safety (Article 19), and participation (Article 12) (UN CRC Committee, 2021).

Sonia Livingstone and colleagues emphasize that since the UNCRC predates widespread internet use, its principles "require reinterpretation in the digital age to recognize children as independent rights-holders in digital environments" (Livingstone et al., 2020). Digital technology offers children new opportunities for expression, education, and participation, while simultaneously presenting serious challenges that require vigilant safeguarding and rights-based policy frameworks. Amanda Third et al. (2024) highlight that children view digital technology as essential for realizing their rights to education, information, and meaningful participation, and insist that "digital inclusion is a prerequisite for educational equity and empowerment" across diverse socio-economic and geographic contexts. This echoes the imperative for equitable and affordable digital access to ensure children's full rights in virtual classrooms.



A comprehensive UNICEF-supported study underscores the importance of listening to children's perspectives in shaping digital rights policies, noting that children regard digital spaces as integral to their lives with no clear offline-online divide (UNICEF, 2024). The authors caution that an overemphasis on digital risk and safety can inadvertently curtail children's rights to participation and access to digital opportunities, advocating instead for balanced approaches that protect children while empowering their digital literacy and agency (Livingstone & Helsper, 2010).

Baroness Beeban Kidron, Chair of the 5Rights Foundation, succinctly states, "Children demand a digital world that is affordable, fair, safe, and rights-respecting," calling for collaborative policy and technology development that centers children's rights and experiences in online educational environments (Kidron, 2024).

These perspectives converge to indicate that children's rights in tomorrow's virtual classrooms require not only technological advancement but also inclusive governance that respects children as active agents. Policies must bridge the gap between rapid digitization and rights protection, ensuring digital education delivers equitable, safe, and empowering learning experiences for all children.

#### **Legislation in Advanced Countries**

In advanced countries, children's rights in virtual learning environments are governed by a comprehensive set of education-specific laws as well as broader digital safety and data protection regulations. These legislative frameworks aim to address the unique challenges posed by the increasing digitization of education while ensuring that children's rights are prioritized, protected, and fulfilled in compliance with international human rights standards.

#### **European Union**

The European Union (EU) stands at the forefront of regulating children's digital rights through landmark legislation such as the General Data Protection Regulation (GDPR). Notably, the GDPR includes enhanced protections for children's personal data, reflecting the recognition that minors constitute a distinct risk group requiring tailored safeguards (EU GDPR, 2018, as updated in 2025). From 2025 onwards, the EU has introduced stricter rules mandating



private-by-default settings for children's accounts, robust and reliable age verification systems, and ethical design standards that prohibit manipulative features such as infinite scrolling or autoplay unless explicitly opted in by the child (European Commission, 2025). These measures are reinforced under the Digital Services Act (DSA), which requires online platforms accessible to minors to implement proportionate and risk-based safety measures, including content moderation, protection from harmful commercial practices, cyberbullying, and grooming. The DSA also prohibits the use of minors' personal data for targeted advertising, thereby mitigating exploitative marketing tactics (European Commission, 2025).

The EU's approach integrates data protection, online safety, and children's rights into a cohesive regulatory framework that extends beyond education platforms to all digital services accessed by minors. This includes the development of tools such as the EU Digital Identity Wallet, scheduled for launch in 2026, designed to facilitate secure, privacy-preserving age verification (European Commission, 2025). The Commission's guidelines emphasize that these measures must not unduly restrict children's rights to participation and access to information but balance safety with empowerment and inclusion.

### **OECD Countries**

Several Organization for Economic Co-operation and Development (OECD) member states have embedded children's digital rights into national educational policies. These strategies typically prioritize equitable access to digital learning technologies, digital literacy development, and safeguarding children against online risks. For example, countries such as Canada, Australia, and South Korea mandate transparent accountability frameworks requiring educational institutions and digital service providers to implement safeguarding protocols, regular safety assessments, and mechanisms for children to report harm or abuse within virtual classrooms.

Policies also address infrastructural inequalities by investing in broadband access and devices for underserved populations, acknowledging that digital inclusion is crucial to upholding the right to education in virtual settings (OECD, 2024). Common regulatory themes among OECD countries include ensuring





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digital literacy programs encompass privacy awareness, critical thinking towards online content, and resilience against cyberbullying.

### **Accountability and Enforcement**

Advanced countries increasingly recognize the necessity of clear enforcement mechanisms to ensure compliance with digital children's rights laws. In the EU, enforcement responsibility is shared between national authorities and the European Commission, with ongoing investigations and penalties for major digital service providers failing to meet obligations under the DSA (European Parliament, 2025). However, challenges remain in resourcing and coordination among national regulators to effectively implement these measures.

Collectively, the legislation in advanced countries reflects a sophisticated, multilayered approach to safeguarding children's rights in virtual learning environments. By combining specific education sector regulations with comprehensive digital safety and data protection laws, these countries strive to create digital education ecosystems that are safe, inclusive, and empowering for all children. The ongoing evolution of these legal frameworks underscores the importance of adaptive governance aligned with rapid technological change, protecting children's rights not only within physical classrooms but in the expanding digital landscapes of education tomorrow.

### **Legal Framework in the Republic of Uzbekistan**

The Republic of Uzbekistan has been actively aligning its national legal framework with international standards to uphold and protect children's rights, particularly in the context of education and the ongoing digital transformation. The country's Constitution guarantees the right to education for all citizens, emphasizing the development of a continuous education system that encompasses diverse forms and levels—including preschool, general secondary, specialized secondary, professional, higher, and postgraduate education (Constitution of Uzbekistan, Article 41-42).

Recent legislative reforms reflect a proactive response to the evolving challenges posed by digital education and issues surrounding children's safeguarding in educational contexts. A landmark law signed in February 2025, which amends



***Modern American Journal of Business,  
Economics, and Entrepreneurship***

**ISSN (E):** 3067-7203

**Volume** 01, **Issue** 05, August, 2025

**Website:** [usajournals.org](http://usajournals.org)

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the Law “On Guarantees of Children’s Rights” and the Administrative Liability Code, aims to strengthen protections against unlawful involvement of children in unofficial or unregulated religious education. This law specifically prohibits parents or guardians from enrolling children in unregistered religious institutions or entrusting their religious education to unqualified individuals lacking formal authorization from central religious authorities. Violations can result in administrative penalties, including fines and short-term administrative arrest, highlighting the state's commitment to protecting children from potentially harmful or isolating educational practices that may interfere with comprehensive personal development (Uzbekistan Law on Protection of Children, 2025).

Further criminalization measures were introduced in June 2025, establishing harsher penalties—including imprisonment up to three years—for individuals who conduct unauthorized religious education for minors without proper credentials or state approval. This legislative tightening underscores Uzbekistan’s resolve to safeguard not only the educational rights but also the broader physical, intellectual, spiritual, and moral development of children within a regulated and state-supervised framework (Uzbekistan Criminal Code Amendments, 2025).

Beyond religious education, Uzbekistan has implemented systemic reforms to ensure all children’s rights are protected in line with the UN Convention on the Rights of the Child (UNCRC), which Uzbekistan ratified in 1994. These reforms include the adoption of laws aimed at protecting children from all forms of violence—physical, psychological, economic, and neglect—expanding definitions and strengthening state responsibilities for prevention, intervention, and rehabilitation. The 2024 Law “On the Protection of Children from All Forms of Violence,” which came into force in May 2025, exemplifies these efforts by broadening the scope of child protection measures to include community-based and inter-agency cooperation involving educational, medical, law enforcement, and local governance actors (National Law on Protection of Children, 2024).

Uzbekistan’s commitment to “no child left behind” is further evidenced through ongoing workshops, policy reviews, and national strategies emphasizing equitable access, quality education, and safe learning environments. These initiatives are supported by dedicated national bodies such as the Commissioner



for Children's Rights and international partners like UNICEF, which assist in policy development, capacity building, and monitoring implementation (Commissioner for Children's Rights, Uzbekistan; UNICEF Uzbekistan).

The legal framework also addresses the digital dimension of education, with growing attention to ensuring that children benefit from digital literacy and safe access to virtual learning platforms while being protected from online harms. Although specific digital education laws are still evolving, policies increasingly align with international guidelines and emphasize infrastructural development, digital skill-building, and safeguarding against information harmful to children's well-being.

Consequently, Uzbekistan has made significant strides in integrating children's rights into its national legal and policy frameworks, balancing traditional educational protections with emerging challenges of the digital era. These comprehensive legislative efforts aim to create secure, inclusive, and supportive educational environments for all children, reflecting global human rights norms and local cultural contexts.

Therefore, Surayo Rakhmonova, Commissioner of the Oliy Majlis for Children's Rights in Uzbekistan, provides an insightful overview of the current situation of children and adolescents in Uzbekistan: This analysis focuses on the situation of children and adolescents in Uzbekistan from the perspective of human rights principles such as equality and non-discrimination. It serves as a valuable tool for policy development aimed at improving the well-being of children and adolescents. (Rakhmonova, 2025). From a global digital rights perspective, an expert from the 5Rights Foundation highlights the expanding scope of children's rights as education increasingly moves online: Children's rights do not stop at the school gate or the classroom door. As education moves online, the same protections for privacy, safety, and participation must be ensured in virtual environments. (5Rights Foundation Expert, 2025)

### Conclusion

The transition from the traditional blackboard to the virtual classroom embodies both a significant opportunity and a profound responsibility for contemporary education systems. This shift necessitates a comprehensive recalibration of legal frameworks, educational policies, and safeguarding practices to ensure the





effective protection and promotion of children's rights within increasingly complex digital ecosystems. As education continues to evolve beyond physical boundaries, ensuring equitable access, privacy, safety, and active participation in virtual learning environments becomes paramount.

Countries such as Uzbekistan exemplify progressive efforts to harmonize international human rights standards with local socio-cultural and legal realities. Through legislative reforms, strategic policy development, and collaborative partnerships with international organizations, Uzbekistan is striving to guarantee that every child has the opportunity to learn, grow, and thrive in the educational landscapes of tomorrow. These efforts underscore the critical need for adaptable, rights-based governance models that respond to technological advancements while centering the best interests of the child.

Ultimately, safeguarding children's rights in virtual classrooms requires ongoing vigilance, innovation, and commitment from policymakers, educators, technology developers, and society at large to ensure that the digital transformation of education is inclusive, safe, and empowering for all children. Here is a Harvard-style reference for the sources you provided, formatted for an academic reference list:

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