


# Chapter 1

# Children in Digital Spaces Safety, Privacy, and Protection in the Age of AI

**Ayah Abdulraheem**

 <https://orcid.org/0009-0005-8428-9917>

*University of Petra, Jordan*

**Mohammad Arafah**

 <https://orcid.org/0000-0001-5645-2290>

*University of Petra, Jordan*

## **ABSTRACT**

*In this chapter, I examine the extraordinary changes in the digital media brought to us by the artificial intelligence technologies, examining at once both the phenomenal indeed unprecedented opportunities they open up, and the huge ethical challenges they arise with. The chapter also serves a crucial role in examining the challenges related to privacy, misinformation, addiction and the protection of the most vulnerable users, especially children, in such processes of creation, curation, distribution and consumption of content, led by AI. The focus is on the integration of parental consent mechanisms along with the child engagement within enhanced digital protection protocols, investigating how current and future artificial intelligence, machine learning technologies can assist in monitoring and minimizing online by cyberbullying, fraud, harassment, trafficking and illicit recruitment efforts. Written for policymakers, technology creators, parents, educators, and law enforcement agencies.*

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## **INTRODUCTION**

Because of fast digital growth in childhood, there is now a greater need for advanced ways to keep children safe and still allow them to grow. In our digital world, more than 2.5 quintillion bytes of data are processed every day and a large part of this includes information on children and their online actions (Marr, 2021). Because of the increase in data, it is now more important than ever to link parental permission with children's meaningful participation in deciding how to protect them online (Livingstone & Third, 2017). Deploying consent from parents along with child engagement represents a new trend, as it allows for kids to grow and remain protected in different ways (Wisniewski et al., 2017).

It is shown by research that 95% of American teenagers have smartphones and 45% spend almost all of their time online (Anderson & Jiang, 2018). Being online so much can put children at risk which is why protection systems need to adapt to their growing up and maintain proper supervision (Shin & Lwin, 2017). Because of the COVID-19 pandemic, more children are now using the internet, but only 34% of their online activities had any form of protection (UNICEF, 2023). Since there is a big protection gap, there is a strong need for new solutions that blend parental consent well with ways to engage children that are appropriate for their age (Livingstone et al., 2020).

### **Advanced Integration Framework for Parental Consent and Child Engagement**

Technical support is needed to allow children to participate while still making sure their parents' permission is followed (Clark, 2011). Now, technologies use multiple approval systems, watch behaviours to understand development and adjust safety features as children become more capable (Digital Futures Initiative, 2023). Advanced artificial intelligence is used in these systems such as natural language processing for proper communication with children, machine learning for understanding risks and blockchain for safe and verified consent (Gorwa et al., 2020).

The top integration frameworks feature automated systems that verify ages (with a 96.7% success rate), engines that review content and behaviour in real-time, dashboards that help children use the platform in a safe way and interfaces that allow parents and children to make decisions together (Yoti, 2023). Because of these tools, educators can offer digital spaces that are very safe and also teach students about responsible online behaviour (Frau-Meigs & Torrent, 2009).

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