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# Security for Children in the Digital Society - A Rights-based and Research Ethics Approach

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**Abstract**

In this position paper, we present initial perspectives and research results from the project “SIKID - Security for Children in the Digital World.” The project is situated in a German context with a focus on European frameworks for the development of Artificial Intelligence and the protection of children from security risks arising in the course of algorithm-mediated online communication. The project strengthens networks of relevant stakeholders, explores regulatory measures and informs policy makers, and develops a children’s rights approach to questions of security for children online while also developing a research ethics approach for conducting research with children on online harms such as cybergrooming and sexual violence against children.

**Keywords**

Children, youth, security online, safety, digital society, research, ethics, children’s rights

**Introduction**

The Internet, originally intended for communication between adults, is now used equally by children. Children today not only consume media, but also create content and interact in games, chats, and social media, being active members of the digital society. They are, however, a particularly vulnerable social group, exposed to increased

security risks through premature and often unguided digital use. Algorithmic mediation and control, a massive amount of real-time and insufficiently moderated content, and the shift of crime to the Internet pose challenges for children's safe navigation of the digital society.

SIKID - Security for Children in the Digital World, is a German research project, funded by the German Federal Ministry for Education and Research, that explores the risks for children online from a children's rights and research ethics perspective. The project promotes the idea that children are actors in the digital society. They are the bearers of human rights, including rights to their protection, but also rights to the provision of support leading to their empowerment so as to be able to safely participate in the digital society. It is against the backdrop of this perspective that the SIKID project explores and helps to prevent security risks for children online.

SIKID makes three contributions to research and practice. First, we identify and connect relevant stakeholders in the German landscape of media (self-)regulation and children's rights. Second, we analyze legislation for the protection of children online and offer points to consider to policy makers. Third, we provide an ethically founded research paradigm to involve children in research on sensitive topics such as cybergrooming and sexual violence against children online.

### **Children as Actors in the Digital Society**

Even very young children have their own smartphone and access to the Internet; they use apps such as WhatsApp and YouTube as well as digital games on a daily basis [7, 5]. Among 12- to 19-year-olds in Germany, 96 percent use a smartphone daily or several times a week, and 93 percent use WhatsApp at least several times a week [4].

Children participate in the digital society and are actors subjected to the benefits and risks of the online world. From a children's rights perspective, children should be empowered to take part in the digital society in a safe manner. It should thus not be the goal to protect children *from* participation in the digital society, where risks can arise, but rather to protect them as active participants *in* the digital society [14].

Children are the bearers of internationally recognized human rights. The UN Convention on the Rights of the Child (1989) lays out these rights such as the right to safety, participation, and empowerment [15]. Since children are still developing their capacities and can be vulnerable in many areas of their lives, they should be protected. This said, children also have a right to participation: to have their opinions taken into account in all matters affecting them (see Article 12 in [15]). This includes (from a children's rights perspective) a right to co-designing digital media and participating in research that seeks to produce measures for children's protection and empowerment. In order to realize children's rights, support from governmental actors, educational institutions, care-givers, and communities as a whole, but also platforms, researchers, and designers of digital media is vital.

### **Security Risks for Children Online**

A significant part of crime has shifted to the Internet in recent years with manifold risks for children. The annual report of the German organization jugendschutz.net (2022) shows an increase in crimes committed via the Internet. The offenses registered by jugendschutz.net in 2022 include 7,363 cases overall, of which 66 percent were cases of sexual violence against children [9]. Security risks are dynamic and move from online interactions to real-life

threats: precarious situations and intrusive online interactions can quickly evolve into dangerous or even life-threatening matters in the real world.

In general, security risks for children online include sexual boundary violations or exploitation of children, cybergrooming [17], child pornography [8, 135ff], tracking via geodata and profiles, stalking [8, 113ff], doxing (the publication of others' confidential content), cyberbullying [10], disinformation and deep fakes [16], hate speech [1], radicalization and extremism [6], self-harm contests, threats to privacy [13], and monetary insecurity (also see [2] for an overview of all security risks).

In view of these far-reaching security threats, there are deficits in research, regulation and law enforcement with regard to the safety of children in the digital world. SIKID responds to these shortcomings by strengthening networks of relevant stakeholders, informing policy makers, and supporting ethical research with children to promote more participatory approaches in knowledge production about security risks for children online.

### **A Network of Stakeholders in Germany**

SIKID aims at strengthening networks of stakeholders who are committed to protecting children as acting subjects in the digital society. These stakeholders (including media oversight, consumer protection, and organizations for children's rights) are relevant partners in increasing safety for children online.

The Bundesarbeitsgemeinschaft Kinder- und Jugenschutz (BAJ) is a German organization for the civil protection of children and youth in all areas of life.<sup>1</sup> BAJ publishes the journal "Kinder- und Jugenschutz in

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<sup>1</sup><https://www.bag-jugenschutz.de/de/Index>

Wissenschaft und Praxis," for research and practice on children's safety.<sup>2</sup> JFF – Institut für Medienpädagogik in Forschung und Praxis conducts research and promotes activities on youth and media.<sup>3</sup> The organization Freiwillige Selbstkontrolle Multimedia (FSM) supports companies in enacting measures to protect children online, and is part of the EU Special Group on Code of Conduct for age-appropriate design.<sup>4</sup> The internet-beschwerdestelle.de is an online platform that deals with complaints of hate speech or content that is harmful to children.<sup>5</sup> Jugendschutz.net is an online platform reporting on recent trends for youth online and publishes an annual report about the risks for children and youth online.<sup>6</sup> EU Kids Online is an EU-wide consortium of research partners interested in children's experiences in the digital society.<sup>7</sup> "Schau hin" is an online platform offering guidance for parents and caregivers.<sup>8</sup> Zebra is an organization that answers questions from children and youth about the digital world.<sup>9</sup>

SIKID supports these stakeholders with expert workshops, policy papers, and invitations to regular "jour fixe" discussions.

### **Regulation of Online Platforms from a Children's Rights Perspective**

Platforms, while enormously influential in structuring the learning and leisure time of children, are barely regulated or take into account the specific needs of under-age users.

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<sup>2</sup><https://www.kjug-zeitschrift.de/>

<sup>3</sup><https://jff.de/>

<sup>4</sup><https://www.fsm.de/>

<sup>5</sup><https://www.internet-beschwerdestelle.de>

<sup>6</sup><https://www.jugendschutz.net/>

<sup>7</sup><https://eukidsonline.de/>

<sup>8</sup><https://www.schau-hin.info/>

<sup>9</sup><https://www.fragzebra.de/>

Some platforms do not have access controls in the form of age verification, lack information and support services designed specifically for children, and fail to set high privacy standards to protect the data of under-age users.

The new European legislation *Digital Services Act* seeks to regulate the powers of transnational platforms that cater content and products to European citizens [3]. The Digital Service Act takes effect in 2024. Article 28 lays out the “online protection of minors,” which requires platforms to “put in place appropriate and proportionate measures to ensure a high level of privacy, safety, and security of minors, on their service” [3].

While we welcome attempts at minimizing risks for children online, it will be a challenge to implement the requirements of the EU Digital Services Act. The act does not provide concrete best practices or tools for implementation. Platforms should rely on the tradition of participatory design with children and parents and insights from child-computer interaction to develop new standards - not only because of legal pressures but because the protection of children is an ethical and industry concern.

As part of its project work, SIKID will provide points to consider to medium-size platforms to support them in implementing measures for the protection of children and thus comply with Art. 28 of the EU Digital Services Act.

### **Ethical Research with Children on Risks of Online Communication**

The SIKID project has produced guidelines based on ethical principles on how to conduct research with children in sensitive subject areas [11].<sup>10</sup> They can serve as a basis

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<sup>10</sup>For the German-language full version or the English-language short version, please contact the authors by email.

for decision-making when doing research with children in subject areas of civil security research. Cybercrime, sexual violence online, and cybergrooming can be difficult subjects for children to discuss, especially if children have been personally affected by those crimes. The guidelines respond to a tension between the need to produce knowledge about children’s experiences of online risks and the obligation to protect children from harm [12].

Following a holistic approach to children’s rights, we believe that all rights of children are equal but special attention should be given to the evolving capacities of the child as well as concrete contexts (e.g., empirical method, special needs of participating children) when conducting research with children [12, 394]. SIKID aims for a conceptual shift emphasizing that research involving children should be conceptualized with children, and that research ethics should be more child-centered.

The 12 principles for ethical reflection when conducting research with children on security topics include: 1. Consider the relevance and justification of the research goals; 2. Reflect on ethical requirements and conduct systematic impact analysis; 3. Obtain informed consent from children in a child- and developmentally appropriate manner; 4. Address methodology considerations for research with children; 5. Protect children from stressful situations when doing research with them; 6. Prevent repeated experiences of victim trauma; 7. Reflect on the scope and limits of professional roles; 8. Initiate cooperation and supervision; 9. Ensure confidentiality and address privacy concerns; 10. Reflect on the role of legal guardians in research; 11. Allow space for moral integrity and transparency during participation; 12. Develop child-friendly forms of communication and ensure accessibility.

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## References

- [1] Blaya, C. Cyberhate: A review and content analysis of intervention strategies. *Aggression and Violent Behavior* 45 (2019), 163–172.
- [2] Brüggem, N., Dreyer, S., Gebel, C., Lauber, A., and Müller, R. Gefährdungsatlas. digitales aufwachsen. vom kind aus denken. zukunftssicher handeln., 2019.
- [3] European Parliament, Council of Europe. Regulation (eu) 2022/2065 on a single market for digital services and amending directive 2000/31/ec.
- [4] Feierabend, S., Rathgeb, T., Kheredmand, H., and Glöckler, S. Jim studie (jugend, information, medien): Basisuntersuchung zum medienumgang 12- bis 19-jähriger, 2022.
- [5] Feierabend, S., Rathgeb, T., Kheredmand, H., and Glöckler, S. Kim studie (kindheit, internet, medien) 2022: Basisuntersuchung zum medienumgang 6- bis 13-jähriger in deutschland, 2022.
- [6] Ghosh, R., Chan, W. A., Manuel, A., and Dilimulati, M. Can education counter violent religious extremism? *Canadian Foreign Policy Journal* 23, 2 (2017), 117–133.
- [7] Hajok, D. Der veränderte medienumgang von kindern: Tendenzen aus 15 jahren kim-studie. *JMS Jugend Medien Schutz-Report* 42, 3 (2019), 6–8.
- [8] Huber, E. *Cybercrime: Eine Einführung*, 1. auflage ed. Lehrbuch. Springer VS, Wiesbaden, 2019.
- [9] jugendschutz.net. Jugendschutz im internet: Risiken und handlungsbedarf: 2022 bericht, April 2023.
- [10] Pfetsch, J., and Schultze-Krumbholz, A. Cyberbullying als herausforderung für schulen. In *Digitalisierung in der schulischen Bildung*, N. McElvany, F. Schwabe, W. Bos, and H. G. Holtappels, Eds., IFS-Bildungsdialoge. Waxmann, Münster, 2018.
- [11] Stapf, I., Bieß, C., Heesen, J., Adelio, O., Pavel, C., Andresen, S., Dreyer, S., Lampert, C., Paschel, F., Pfetsch, J., and Thiel, K. Zwischen fürsorge und forschungsziele: Ethische leitlinien für die forschung mit kindern zu sensiblen themenbereichen, 2022.
- [12] Stapf, I., Biess, C., Pfetsch, J., and Paschel, F. Respecting children's rights in research ethics and research methods. *Journal of Children and Media* 17, 3 (2023), 393–399.
- [13] Stapf, I., Meinert, Judith, Heesen, Jessica, Krämer, N., Ammicht Quinn, R., Bieker, F., Friedewald, M., Geminn, C., Martin, N., Nebel, M., Ochs, C., Watzinger, L., and Baur, A. Privacy and children's rights: White paper, 2023.
- [14] UK Information Commissioner's Office. Introduction to the children's code, 2020.
- [15] United Nations. Convention on the rights of the child: Uncrc, 20 November 1989.
- [16] Vaccari, C., and Chadwick, A. Deepfakes and disinformation: Exploring the impact of synthetic political video on deception, uncertainty, and trust in news. *Social Media + Society* 6, 1 (2020), 1–13.
- [17] Wachs, S., Michelsen, A., Wright, M. F., Gámez-Guadix, M., Almendros, C., Kwon, Y., Na, E.-Y., Sittichai, R., Singh, R., Biswal, R., Görzig, A., and Yanagida, T. A routine activity approach to understand cybergrooming victimization among adolescents from six countries. *Cyberpsychology, behavior and social networking* 23, 4 (2020), 218–224.