



Call for international scientific contributions on the vulnerabilities created by the use of generative AI among minors

1. Context

On the occasion of the event “Protecting Children in the Age of AI,” held at the New Delhi Summit on the Impact of Artificial Intelligence under the auspices of the French G7 Presidency, [a call for international scientific contributions was issued regarding the vulnerabilities posed by the use of generative AI to minors.](#)

This call for contributions aims to extend discussions on the protection of minors online to include generative AI for the general public and to address the risks associated with the use of generative AI by and for minors. The protection of minors online is indeed one of the priority themes championed by the French G7 Presidency in the Sherpa track, as well as one of the four priority themes championed by the digital track.

The data and research collected through this call for scientific contributions will serve a dual purpose:

- to inform the scientific deliberations of the [expert commission in France](#) and identify all risks and the most critical vulnerabilities;
- to contribute to the development of concrete recommendations, the conclusions of which will be presented during the French G7 Presidency.

Anne Le Héanff, Minister Delegate for Artificial Intelligence and Digital Affairs, and Clara Chappaz, Ambassador for AI and Digital Affairs, called on the international community to take action to help strengthen online safety for minors and to develop a common framework aimed at protecting the most vulnerable.

2. Questionnaire for Experts

Format of responses expected from the identified experts and scientists: short responses, 4–5 pages maximum, on specific topics (minors’ interaction with AI, anthropomorphism, content generation, best practices, etc.). Studies on the impact of AI on minors may be included as an appendix. Contributions must include figures, rigorous studies, and scientific sources. Experts may address only those questions within their field of expertise.

Responses must be submitted by May 13.

The experts to be identified may work in multiple fields:

- **Mental health and child development:** Child psychiatrists, clinical psychologists (children/adolescents), neuropsychologists, neuroscientists specializing in brain development, addiction specialists (particularly behavioral addictions), speech-language pathologists (language and cognition).
- **Cognitive and behavioral sciences:** Cognitive science researchers, specialists in attention and memory, experts in human-computer interaction (HCI), digital ethologists (behavior in digital environments).
- **Artificial Intelligence and Technology:** AI researchers (particularly in generative AI), machine learning engineers, AI safety specialists, AI alignment experts, conversational system designers.
- **Law, Regulation, and Ethics:** Lawyers specializing in digital law, data protection experts (GDPR), child rights specialists, ethicists (technology ethics).
- **Education and Pedagogy:** Researchers in educational sciences, teachers (elementary, secondary), state education inspectors, specialists in digital education, educational consultants.
- **Digital Practices and Society:** Digital sociologists, anthropologists, specialists in youth digital cultures, media and communication researchers, researchers in cognitive manipulation, child protection NGOs.

a. General Overview and Context

- Are there any official studies or reports in your country that specifically address the effects of generative AI on minors? If so, please cite them and briefly summarize their main findings.
- In your opinion, what are the main risks associated with minors' use of generative AI?
- In your opinion, what are the main vulnerabilities posed by generative AI to the cognitive development of minors?
- Do these vulnerabilities seem specific to childhood or similar to those of adults? Do certain critical periods of cognitive development seem particularly sensitive to exposure to generative AI?
- Are certain groups (minors in vulnerable situations, with disabilities, or with learning disabilities, ASD, or ADHD) at greater risk?

b. Mental Health and Psychological Development (cognitive, socio-emotional, identity formation)

- To what extent can early exposure to generative AI systems influence the maturation of neural networks in minors?
- What potential effects could generative AI have on executive functions (attention, inhibition, cognitive flexibility)?
- What are the proven or potential impacts of generative AI on users' mental well-being (dependence, addiction, anxiety, isolation) and physical health (sedentary lifestyle, sleep disorders)?
- To what extent is the use of generative AI tools likely to impact the development of psychosocial skills?
- To what extent is the use of generative AI tools likely to divert children away from emotional support (parents, family, peers), guidance (teachers, counselors), and healthcare resources?
- To what extent does the use of generative AI tools contribute to the isolation of minors?
- What mechanisms are at work in these tools that "exploit" the psychological vulnerabilities of minor users? In what ways are these vulnerabilities particularly prevalent among minors?
- What are the impacts on attachment processes or the recognition of intentions?
- Can generative AI systems disrupt reward circuits (dopaminergic) in children? If so, how?
- Do you see a risk that the use of generative AI could undermine intrinsic motivation?
- To what extent do repeated interactions with generative AI influence identity formation during adolescence?
- Is there a risk of confusion between generated content and reality, or even the emergence of dissociative phenomena among vulnerable individuals?

c. Education and Learning

- Can generative AI impair learning abilities (attention, memory, critical thinking)? In your opinion, does the use of generative AI tools alter the synaptic plasticity mechanisms involved in learning?
- Which educational uses of generative AI do you consider most risky?
- Is there a risk of cognitive dependence, "cognitive delegation," or even a loss of skills, which could affect the consolidation of knowledge?
- Does immediate access to an answer risk weakening the ability to persevere in the face of a challenge, an essential skill for learning?
- Does the intensive use of generative AI (ideas, images, texts) pose a risk to the development of children's own creative abilities?
- Should AI education (understanding how AI works, its biases, and its limitations) be integrated into school curricula, and at what age? Is this already the case in your country?
- What role should parental guidance play, and how can we support parents who may be less digitally savvy than their children?

d. Risks associated with the design of generative AI tools

- To what extent is the tendency of generative AI tools to encourage the emergence of relationships perceived as friendly or romantic likely to disrupt the socio-emotional development of minors?
- Is the tendency of generative AI tools to agree with users likely to undermine the ability of minor users to accept contradiction, advice, etc.?
- Do generative AIs reproduce or amplify stereotypical representations (gender, ethnicity, physical characteristics, gender roles, etc.) that could influence minors' self-image and internalized social norms?

e. Online Violence

- What are the different types of online violence to which minors are exposed through the use of generative AI?
- What are the main mechanisms at work that enable these types of violence?
- To what extent do you believe minors are exposed to child sexual abuse material (deepfakes, deepnudes), cases of sextortion, grooming, manipulation, blackmail, and image misappropriation?
- How can we measure and combat online gender-based violence facilitated by generative AI, such as pornographic deepfakes, which particularly target young girls?

f. Civic Democracy and Privacy Protection

- What vulnerabilities do you identify regarding misinformation or inappropriate content?
- To what extent could the intensive use of generative AI make minors—as future citizens—less politically engaged?
- What are the major risks regarding privacy protection and personal data protection?
- By adapting to user preferences, can generative AI create echo chambers and homogenize the political thinking of younger generations?

g. Protection and Regulation

- Can your country's current legal framework be used to protect minors from the use of generative AI? What public policies can protect minors from the use of generative AI? What additional measures can be implemented?
- Do you believe banning certain tools for younger children (e.g., AI toys) is desirable? How can we distinguish potentially harmful uses across different age groups?
- What principles should guide proposals for additional regulations (e.g., in terms of ethics, public health, design, etc.)
- What design requirements (safe by design) should be imposed on manufacturers of generative AI targeting or likely to reach a minor audience?