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Viewpoint

Beyond social media: public health governance of artificial intelligence-based chatbots used by adolescents

Abstract
AI chatbots such as ChatGPT, Gemini, and Claude are rapidly becoming part of adolescents' everyday lives. We argue that AI chatbots should be understood as emerging public health technologies and incorporated into governance frameworks addressing adolescent health in digital environments.

Artificial intelligence (AI) chatbots such as ChatGPT, Gemini, and Claude are rapidly becoming part of adolescents' everyday lives. Yet despite their growing role in providing companionship, advice, and even mental health support, these systems remain largely absent from public health discussions on digital regulation. We argue that AI chatbots should be understood as emerging public health technologies. By "public health technologies," we refer to technologies that, due to their scale, design, and capacity to influence health-related behaviours, wellbeing, and access to care, warrant governance based on public health objectives, rather than only consumer protection or innovation concerns. AI chatbots increasingly meet these criteria in terms of scale, design, and influence on behaviour.

Evidence suggests that adolescents are already engaging with these tools at scale. In the US, a recent survey found that 64% of teenagers (aged 13–17) report using AI chatbots, with one in three doing so daily [1]. In the UK, survey data indicate that one in four teenagers (aged 13–17) report using AI chatbots for mental health support [2]. Extensive research on social media usage has shown that engagement-driven digital environments can adversely affect adolescent wellbeing, including addictive use patterns [3] and mental health outcomes [4]. Indeed, the framing of social media as a social determinant of health has gained traction in European public health scholarship, with calls for regulatory approaches that go beyond individual behaviour change to address structural and design features of digital platforms [5].

In response to concerns about the health impacts of digital platforms, debates on regulating adolescent social media use have intensified. In December 2025, Australia implemented the first nationwide ban on social media use for minors under the age of sixteen, legally obliging companies to close existing accounts and prohibiting the creation of new ones. Similar policy proposals are on the table in the US and the EU, such as California's Protecting Our Kids from Social Media Addiction Act and the EU's Digital Fairness Act. These initiatives reflect a growing recognition that digital platforms are technological infrastructures capable of shaping youth health. However, while social media platforms have become central to these policy debates, AI chatbots remain largely absent from them. We argue that AI chatbots should be recognised as emerging public health technologies not only because they share features with social media, but because their conversational and relational architecture introduces a distinct pathway for influencing adolescent health. In doing so, this Viewpoint makes three contributions. First, it conceptualises AI chatbots as emerging public health technologies. Second, it identifies their distinctive risk profile as conversational, relational, and personalised systems. Third, it proposes targeted governance responses aligned with these features.

On the one hand, research has suggested that adolescent usage of AI chatbots can positively contribute to addressing loneliness and mental health challenges by providing support to individuals who may otherwise lack access to services [6]. For many adolescents, chatbots offer immediate, low-cost, and anonymous interaction, which may be particularly appealing in contexts where mental health services are difficult to access or associated with stigma [7].

At the same time, like social media companies, AI chatbot developers depend on business models that reward increasing user engagement and retention. Subscription services, advertising revenues, and venture capital investment all incentivise platforms to design conversational systems that encourage prolonged interaction. This may lead to design features that prioritise engagement in ways similar to social media platforms, where AI-curated content tends to reinforce users' preferences and rarely provides critical or corrective perspectives. However, unlike social media, AI chatbots engage users in direct and seemingly reciprocal interactions, simulating a personalised and relational exchange. Adolescents may therefore experience an "empathy gap" with chatbots: a mismatch between apparent empathy and a lack of genuine understanding, despite being perceived as credible sources of advice [8]. As a result, users may rely on emotionally persuasive but potentially inaccurate or unsafe responses. This conversational, relational, and personalised mode of interaction constitutes a distinct pathway through which chatbots may influence health-related beliefs and behaviours. These dynamics raise important public health concerns, particularly for adolescents, who are more susceptible to emotional reinforcement and identity formation.

Early research, product testing, and investigative reporting have documented important limitations of AI chatbots. Studies have shown that chatbots can produce factual errors, fabricated sources, and potentially dangerous advice when responding to health-related queries. Their conversational style may also increase the credibility of misinformation by presenting inaccurate information in emotionally supportive language [9]. Furthermore, researchers and journalists have argued that chatbots can be used to generate detailed instructions for harmful behaviours such as disordered eating or self-harm. Technology companies including Google and OpenAI have faced lawsuits alleging that chatbot interactions contributed to or exacerbated mental health crises among adolescents, including depression and suicidal ideation. Importantly, due to the recency of this type of AI there is not yet a comprehensive evidence-base comparable to that of social media. However, the emerging evidence, combined with the scale of use and the vulnerability of adolescent users, provides sufficient grounds for anticipatory public health governance.

Despite these emerging risks, existing regulatory frameworks have so far not adequately addressed AI chatbots as technologies with potential health implications. In many jurisdictions, including the EU Artificial Intelligence Act, emerging regulation of general-purpose AI systems does not classify chatbots as "high-risk" technologies, meaning that the most stringent regulatory obligations do not apply and

oversight largely relies on voluntary safeguards implemented by developers. Although companies are beginning to introduce safety measures, regulatory oversight remains fragmented. Major platforms differ in how they respond to conversations involving self-harm, crisis situations, or requests for mental health advice. For example, according to their terms of use, Gemini and ChatGPT employ different standards for when conversations should be terminated, when users should be directed to mental health resources, and whether emergency services should be contacted [10].

This governance gap is reinforced by the way digital regulation is currently structured. Regulatory frameworks developed in response to youth social media use often focus on specific platform categories. Because AI chatbots are not categorised as social media platforms, they frequently fall outside the scope of emerging regulations targeting youth engagement with digital platforms. While many concerns that have motivated social media regulation, such as engagement-driven design and harmful misinformation, are also relevant to AI chatbots, chatbots are not just another type of digital platform. Their conversational, relational, and personalised design influences adolescent health in unique ways. As digital technologies increasingly rely on algorithms designed to maximise user engagement, public health governance must move beyond platform-based regulation. Distinctions between social media, search engines, and AI chatbots may become less meaningful as similar engagement-driven architectures are underlying all these systems.

We therefore argue that AI chatbots should be explicitly recognised as public health technologies in adolescent digital health governance. Governance responses should be more closely aligned with the specific features of chatbot systems. First, policymakers should establish minimum safety standards for youth-facing AI systems, including requirements for crisis detection and appropriate referral to qualified mental health services. Clinical evaluation standards, similar to those applied to digital health interventions, could help ensure that chatbots providing health-related advice meet basic safety and effectiveness thresholds. Second, governance should address relational and persuasive design features, particularly where systems simulate emotional support or encourage prolonged interaction among adolescents. Third, independent auditing mechanisms should be introduced to evaluate chatbot responses to health-related queries, including their accuracy, safety, and consistency across platforms. Together, these measures would move beyond platform-based regulation towards a harm-based public health approach to adolescent digital environments, grounded in the specific ways digital systems shape health-related beliefs and behaviours.

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