

Executive Summary

Australia banned social media for under-16s, and roughly 70% of them got online anyway¹. You cannot wall children off from the internet, so we do the opposite: we make them immune. IMMUNO is an on-device AI that vaccinates a child's judgment against online manipulation, leading to harassment, bullying, and scamming. Rather than acting as a generic filter that quietly absorbs threats on the child's behalf, IMMUNO uses proven psychological inoculation². It delivers a proactive "mind vaccine" via safe, fictional practice doses of manipulation tactics during downtime. Then, when the shape of a real tactic unfolds in a live chat, it delivers a "booster shot"—a labeled card reminding the child of the trick being used. Simply, IMMUNO proactively teaches children how common manipulation tactics work so they can recognize and respond to them safely in real situations.

Background & Motivation

We are students in Seoul, growing up inside one of the most wired teen cultures on earth, and we have seen the damage up close. In Korea, juvenile cyberbullying has outpaced physical violence since 2018; the government's 2023 survey flagged 28,838 teenagers at risk of online gambling^{3,4}; and the state runs a youth-rehabilitation center for internet addiction. The pattern behind these statistics is clear: a friend who got pulled in did not need a filter—they needed to recognize the trick a moment earlier. Australia's world-first under-16 ban proves this point: bans were easily bypassed, and regulators opened platform investigations within months¹. You simply cannot keep children away from manipulation, so durable protection requires cognitive resilience over structural surveillance.

Business Description

IMMUNO is established on two settled bodies of science: Inoculation Theory, which proves that people can be trained to resist manipulation before encountering it, and Network Contagion Theory, which explains how harmful behaviors spread through social networks. We turn this science into a four-part UI app that teaches tactics to children before and during real threats. Cognitive science proves retention drops during acute emotional stress, so IMMUNO structures its workflow across four distinct local tabs. Under the Vaccine tab (diagram below), IMMUNO delivers short, gamified practice scenarios using fictional examples during downtime to identify manipulation tactics early. Under the Booster tab, users enter real-time interactive AI chat simulations to practice safe de-escalation responses and earn XP. To ensure long-term defense data retention, the Memory tab hosts brief follow-up quizzes that dynamically measure and reinforce what the user remembers. Finally, the Threats tab operates as a sandboxed On-Device Virtual Keyboard Extension. By integrating directly at the user-input layer rather than attempting to bypass closed-platform database restrictions, our local INT-8 quantized model safely analyzes linguistic patterns within outgoing text and clipboard data in real-time through entirely on-device processing. If it detects conventional architecture of manipulation—such as 'Act now before it's too late' or 'Don't tell your parents'—it delivers a 'Real Threat Detected' tactical analysis and a safe response script that the user can use directly in the actual app. While generic detectors simply block messages, IMMUNO trains the child's own judgment to resist both familiar and new tactics they encounter in real chats, and safely respond to them. Furthermore, because harmful content spreads through friend networks like a disease, equipping enough children with this cognitive immunity actively slows the contagion, creating herd immunity. In other words, when enough children can recognize manipulation, harmful tactics become less effective and spread to fewer people.

Potential Markets & Implementation Plan

IMMUNO launches first in South Korea, where rising concerns over cyberbullying, online exploitation, and youth digital safety have driven substantial public investment in related initiatives. As the child never pays for our product, our initial target buyers for this product are government organizations aiming to protect the digital safety of youth in South Korea. Primary targets include the Korea Communications Commission⁵, the Ministry of Science & ICT, the Ministry of Gender Equality & Family, and CSR partners such as Samsung's "Blue Elephant", which reached over 11,000 students in the first half of 2024 alone⁶. We will pilot through a fast-tracked public ICT Regulatory Sandbox framework in one Seoul school district of around 5,000 middle school students in Gangnam district, utilizing direct parent-driven B2C digital distribution to bypass slow multi-year bureaucratic procurement cycles. We will publish quantitative resilience-lift metrics measuring manipulation recognition, response quality, and retention gains, then scale to ministries. Once IMMUNO reaches a majority of schools in Seoul, it will expand to other South Korean school districts in Busan and Incheon. Ultimately, IMMUNO will be licensed as a B2B Software Development Kit (SDK) to international social media platforms currently facing immense regulatory pressure and fines in the EU, UK, and Australia.

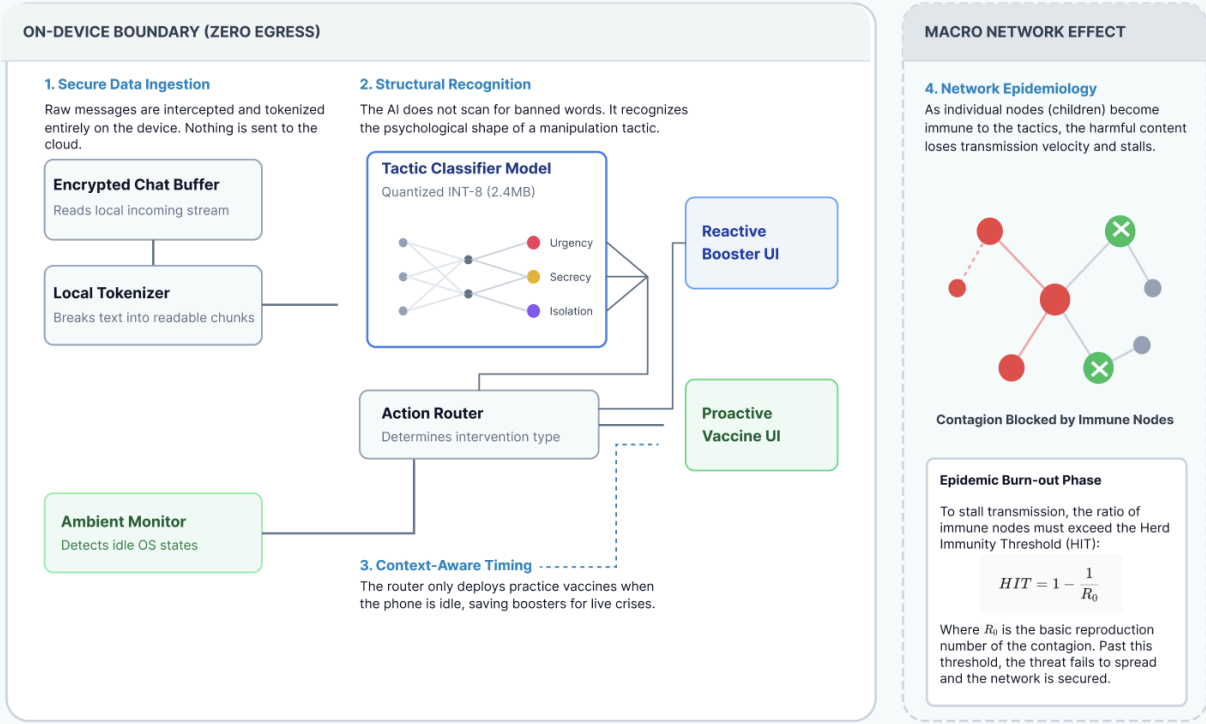
Financial Plan

Upfront capital is strictly allocated to Core ML architecture engineering (75%) and edge-NLP model compression, yielding a highly scalable software asset with near-zero marginal distribution costs. Our triple-yield revenue model leverages public per-seat school licensing (₩10,000/student-year), enterprise SDK licensing for global platforms, and corporate CSR integrations. With 2.3 million domestic minors on social platforms, the initial addressable Korean public market stands at ₩23–25 billion annually, independent of international enterprise scale. Utilizing government digital-welfare grants for our 5,000-student pilot, we project company-wide break-even by Year 3 as high-margin B2B contracts convert. By Year 5, projected revenue reaches ₩7.0 billion across all streams. This commercial trajectory is secured by a unique network-effect moat: each inoculated child strengthens resistance to manipulation within their social graph, increasing the collective value of adoption for schools, public institutions, and future implementation partners.

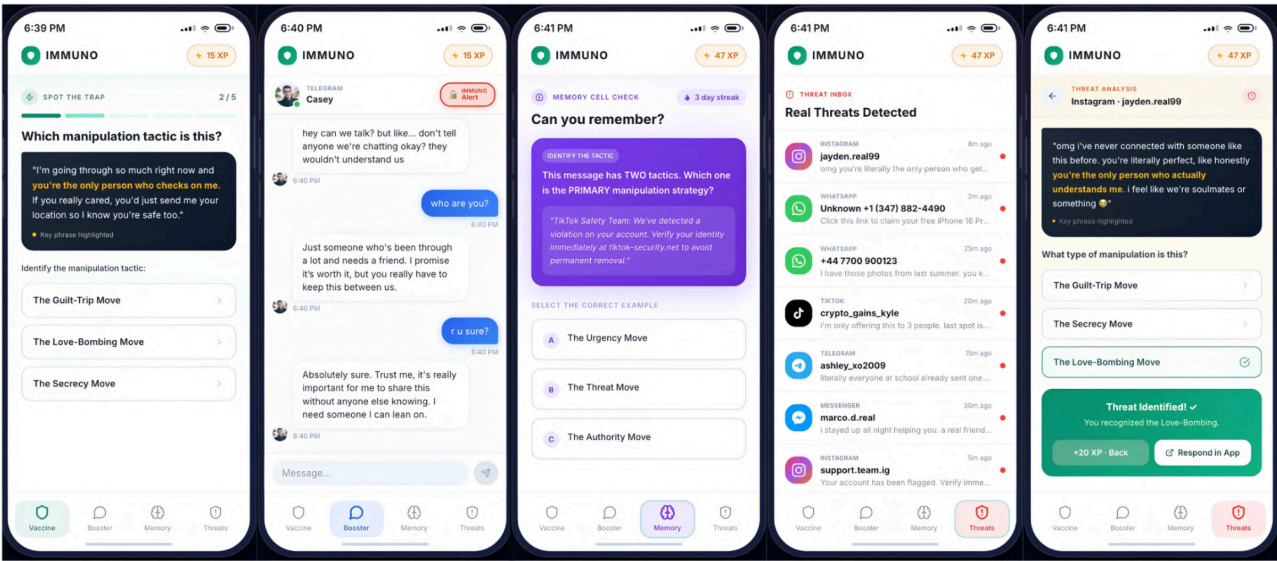
Conclusion

Bans and filters wall a child off; IMMUNO turns the child into the first line of defense. Proven psychology dictates you can vaccinate a mind², and proven network math shows that enough vaccinated minds create herd immunity⁷, meaning manipulation tactics become known and less effective to a greater number of children. Our innovation delivers both on-device, completely shifting the paradigm from software protecting the child, to software empowering the child's own judgment. From one teenager in Seoul to a privacy-preserving immune system for the whole internet, we strengthen minds instead of building walls.

IMMUNO: System Architecture



IMMUNO UI/UX



The 'Vaccine' tab proactive trains users for real-life experiences. The 'Booster' tab provides direct, live chat simulations designed to mimic real-life scenarios. The 'Memory' tab provides instant, post-experience retention quizzes. The 'Threats' tab highlights active, real-time risks found in the user's DMs. When clicking on a specific detected tab, IMMUNO displays an instant tactic analysis.

References

¹eSafety Commissioner. "Social Media Age Restrictions." eSafety Commissioner, <https://www.esafety.gov.au/about-us/industry-regulation/social-media-age-restrictions>.

²Roozenbeek, Jon, et al. "Psychological Inoculation Improves Resilience against Misinformation on Social Media." Science Advances, vol. 8, no. 34, 2022, eabo6254.

³Ministry of Gender Equality and Family. 2023 Survey on Youth Media Use and Harmful Environment. Ministry of Gender Equality and Family, 2023.

⁴Korea Herald. "More Korean Youth Prone to Online Gambling Addiction." The Korea Herald, 20 Nov. 2023.

⁵Korea Communications Commission. "Internet Ethics Education / Cyberbullying Prevention Programs." KCC, <https://www.kcc.go.kr>.

⁶Samsung Corporate Citizenship. "Blue Elephant." Samsung, <https://csr.samsung.com/en/program/samsung-blue-elephant>. Accessed 20 June 2026.

⁷Vosoughi, Soroush, Deb Roy, and Sinan Aral. "The Spread of True and False News Online." Science, vol. 359, no. 6380, 2018, pp. 1146–1151.