**Scroll. Like. Repeat.**

***The Hidden Cost of Social Media on Young Minds***

**Insights from an AI-powered study of 583 youth and parents across Singapore and Australia**

**Executive Summary**

As policymakers worldwide debate the future of platforms like TikTok, this study delivers urgent, first-person insight into how social media is shaping the brains, behaviours, and emotional lives of the next generation.

In a joint project by Nanyang Technological University (NTU Singapore), Research Network, and ListenLabs.ai, 583 young people aged 13–25 and their parents from Singapore and Australia were interviewed using an innovative AI-powered platform. Instead of surveys or Likert scales, participants spoke freely and candidly in voice-recorded sessions—revealing how social media affects their attention, emotions, mental health, relationships, and sense of self.

The findings are clear and confronting:

* **68% of youth** report reduced attention spans, struggling to focus on content longer than a minute.
* **33%** describe their social media use as addictive.
* Teens liken their brains to being “monkey-minded” or “popcorn thinkers,” bouncing constantly from one thought to the next.
* Emotional whiplash is common, with users reporting a rollercoaster of gratification, comparison, anxiety, and guilt—often within seconds.
* **65% of youth** and **60% of parents** worry about long-term impacts on school, work, and wellbeing.
* One teen put it bluntly: *“It’s like my brain is wired to scroll now. I can’t stop.”*

These subjective experiences are not simply anecdotal. They align with recent neuroscientific evidence—including fMRI studies showing that social media “likes” activate the brain’s nucleus accumbens, the same dopamine-rich area involved in drug and gambling addiction.

Yet amid the concern, some positive insights emerge. Many teens cite online communities as sources of emotional support, creativity, and skill-building. Parents, too, are shifting from strict restriction to more collaborative approaches. But both generations agree: left unchecked, social media is shaping minds in ways that demand attention.

“This isn’t just about screen time. It’s about what kind of thinkers, workers, and humans we’re becoming.”  
– **Prof Gemma Calvert**, Lead Investigator

“Social media isn’t going away. But if we want to protect the next generation’s mental and cognitive health, industry and governments must step up—and fast.”  
– **James Breeze**, CEO, Research Network

“I’m Gen Z. I grew up online. But even I can see something’s not right. This study gave us a voice—and we’re saying we need help.”  
– **Ella Carnegie-Brown**, 19, Research Network Intern

This white paper details the study's findings and implications for education, policy, parenting, and platform design. With attention now a precious commodity, the time for a collective, cross-sector response is now.

**1. Introduction**

*Why this study, why now?*

In the wake of rising global concern over the psychological effects of social media—particularly on young people—this study offers a timely, in-depth look into how digital habits are reshaping minds, moods, and lives. While governments in the United States and Europe push forward with age-verification systems and mental health warning labels on platforms like TikTok and Instagram, there has been little direct consultation with those most affected: young people themselves.

This white paper presents findings from a groundbreaking, AI-powered qualitative study conducted across Singapore and Australia. By capturing spontaneous, spoken reflections from 583 young people (aged 13–25) and their parents, the project reveals how attention spans, emotional stability, social behaviours, and even identity development are being quietly—but powerfully—reshaped by algorithm-driven content consumption.

The study is timely. In July 2025, the European Commission launched age verification pilots across five countries to protect minors online (Reuters, 2025), while the U.S. state of Minnesota passed legislation mandating mental health warnings on social media platforms (MPR News, 2025). At the same time, China has proposed sweeping regulations to limit screen time to under 2 hours a day for users under 18 (CNN, 2023). Singapore’s Ministry of Education has already restricted mobile phone use during school hours—but elsewhere, such measures remain rare.

Amid this regulatory flux, this report takes a different approach. Rather than measuring app usage alone, we sought to understand what it *feels like* to grow up immersed in social media—and what the long-term implications might be for cognition, emotion, education, relationships, and career readiness.

These insights matter not just to policymakers and parents, but to educators, mental health professionals, and the platforms themselves. As attention becomes a scarce resource and emotional regulation a growing challenge, understanding the subjective and neural impact of digital environments is no longer optional. It’s foundational.

*“When social media is rewiring how we learn, connect, and think—it’s not just a parenting issue. It’s a societal one.”*  
– Prof Gemma Calvert

**2. Methodology**

This study explored the views of 583 young people aged 13–25 and their parents across Singapore and Australia using a novel AI-powered interviewing platform, ListenLabs. Participants were selected based on age, social media usage, and location, and took part in voice-based, semi-structured interviews. The AI adapted in real-time to each respondent’s answers, enabling deep, personalised conversations about attention, wellbeing, and digital life. The resulting transcripts were analysed using a combination of machine learning and thematic coding to identify patterns, themes, and demographic differences. *Full methodological details are provided in Appendix A.*

**3. Literature Context**

*Understanding the neuroscience, psychology, and public urgency surrounding youth social media use*

Social media use has become nearly ubiquitous among adolescents and young adults, with platforms like TikTok, Instagram, and YouTube embedded in everyday routines. What began as a space for connection and entertainment has evolved into an immersive, algorithmically curated experience—one increasingly linked to measurable changes in attention, emotional wellbeing, and cognitive development.

Recent scientific and policy developments have accelerated global concern about its impact.

**3.1 Neurological Underpinnings: The Dopamine Loop**

Neuroscientific evidence shows that social media engagement activates the brain’s dopaminergic reward system—particularly the *nucleus accumbens*, a region associated with pleasure, reinforcement learning, and addictive behaviours. In a well-cited fMRI study by Sherman et al. (2016), adolescents shown photos with a high number of “likes” on social media exhibited significantly increased activity in the nucleus accumbens compared to when viewing the same content with fewer likes. The researchers concluded that social endorsement cues have powerful reinforcing effects on adolescent brain circuitry, reinforcing habitual app use and emotional sensitivity to peer feedback.

**Sherman, L. E., Greenfield, P. M., Hernandez, L. M., & Dapretto, M. (2016).** *Peer influence via Instagram: Effects on brain and behavior in adolescence*. *Psychological Science*, **27**(7), 1027–1035. https://doi.org/10.1177/0956797616645673

This activation mimics the neurobiological processes seen in substance addiction (Montag & Walla, 2016), creating what many teens in our study described as “scroll addiction,” “dopamine hits,” or a sense of compulsion even when no pleasure is derived.

**3.2 Cognitive Consequences: Attention Fragmentation and Speed Watching**

The digital environment rewards speed and novelty. Platforms like TikTok and Instagram Reels push users through hyper-short content formats—often 6 to 30 seconds—designed to capture attention instantly and continually.

Evidence from **Chiossi et al. (2023)** suggests that the habitual consumption of short-form video leads to diminished prospective memory and fragmented attention. Students who engage regularly with 2x speed videos or skip content mid-stream show reduced depth of processing and cognitive retention.

In our study, 15% of youth reported consuming video at double speed, and 68% said they struggled to concentrate for longer than a minute—supporting previous research on **“popcorn thinking”**, where the mind is trained to jump rapidly between stimuli (Carr, 2010).

**Chiossi, L., Bahmani, D., & Ciucci, E. (2023).** *Short-form video and attention: A cognitive cost of speed watching?* *arXiv preprint*, arXiv:2302.03714. https://doi.org/10.48550/arXiv.2302.03714

**Carr, N. (2010).** *The Shallows: What the Internet Is Doing to Our Brains*. W.W. Norton & Company.

Functional MRI studies have also linked high-frequency media multitasking with reduced grey matter density in the anterior cingulate cortex—an area crucial for impulse control and sustained focus (Loh & Kanai, 2014).

**Loh, K. K., & Kanai, R. (2014).** *Higher media multitasking activity is associated with smaller gray-matter density in the anterior cingulate cortex.* *Cerebral Cortex*, **24**(10), 2629–2635.

**3.3 Emotional Health: Mood Volatility, Comparison, and Guilt**

Social media’s psychological effects are now well-documented. Adolescents who use image-based platforms report elevated anxiety, body dissatisfaction, and feelings of inadequacy due to social comparison (Fardouly et al., 2015; Vogel et al., 2014). These effects are intensified by algorithmic amplification of curated lifestyles and idealised self-presentation.

Our participants echoed this: 16% described comparison-related anxiety, and 45% reported “negative or mixed” feelings after use, including a blend of guilt, emptiness, and mood instability—what some teens called an “emotional rollercoaster.”

The link between social media and adolescent depression has also been observed in longitudinal studies (Twenge et al., 2018), though some researchers note a curvilinear pattern where moderate use may support connection while excessive use leads to dysregulation.

**Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015).** *Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood.* *Body Image*, **13**, 38–45.

**Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2018).** *Increases in depressive symptoms, suicide-related outcomes, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time.* *Clinical Psychological Science*, **6**(1), 3–17.

**3.4 Policy Response: From Screen-Time Limits to Regulation**

The growing scientific consensus has led to a flurry of policy experimentation:

* **European Union (2025)**: Five EU countries launched an **age-verification app** pilot to restrict underage access to certain online platforms.

Source: Reuters, 14 July 2025

* **Minnesota, USA (2025)**: Legislation passed requiring **mental health warnings on social media apps**—similar to tobacco-style labels.

Source: MPR News, 14 July 2025

* **China (2023)**: Introduced rules capping screen time to **two hours per day for users under 18**, with mandatory rest periods.

Source: CNN, 2023

* **Singapore (Ongoing)**: The Ministry of Education restricts phone use during class hours, but broader policy measures are limited.

These developments reflect growing recognition of what Calvert (2025) calls a “generational attention crisis.”However, as our study shows, restrictions alone are insufficient without engaging youth and parents in open, collaborative, and proactive dialogue.

**4. Findings**

*How young people and parents experience social media's psychological toll*

Our AI-powered interviews revealed a generational feedback loop of distraction, emotional volatility, and compulsive scrolling. While some teens celebrated connection and creativity, the dominant narrative was one of cognitive strain, attention fragmentation, and rising anxiety—patterns confirmed by both youth and their parents.

**Attention & Focus**

A staggering **68% of youth** reported difficulty concentrating. Many blamed short-form video for fragmenting their attention span. Over half said they use their phones during class, and **15% watch videos at 2x speed**, training their brains to expect constant novelty. Students described their minds as “monkey-minded” and “popcorn-like,” echoing neuroscience research showing reduced activity in brain regions linked to sustained focus.

*“TikTok has made my attention span so low that I can’t even finish a one-minute video.”*  
– Teen respondent, Australia

Parents echoed the concern: 26% worried their children were multitasking ineffectively, and 52% of students admitted classroom disruption from device use.

**Emotional Wellbeing**

**45% of youth** described mixed or negative emotional states after scrolling—guilt, emptiness, anxiety. Some found comfort in humour or shared communities, but **16%** reported social comparison anxiety. Teens spoke of “emotional whiplash”—laughing, crying, and feeling isolated within seconds.

*“It’s like getting dopamine hits one second and shame the next.”*

Parents noted shifts in self-image, increased mood swings, and a sense of emotional fragility. Some expressed concern that platforms create unrealistic expectations of happiness, beauty, and success.

**Social & Family Relationships**

Social interaction is increasingly filtered through digital lenses. **48% of teens** said most real-life conversations now centre on online content. **27% use social media while socialising**, reducing the depth of in-person connection.

*“We’re all together, but no one’s really present.”*

Parents spoke of reduced family time, one noting: *“It’s like talking to someone who’s half-there, half-scrolling.”*

**Learning & Career Readiness**

Teens voiced concern that their habits were undermining long-term goals. **65%** worried that constant distractions might affect future academic or professional performance. Notifications disrupted study, and multitasking made comprehension harder. Parents feared students were losing the ability to focus, write, or problem-solve deeply.

*“I’m scared I won’t be able to concentrate long enough to hold a proper job.”*

Despite these concerns, some young people found value—using social platforms to develop creative skills, build confidence through content creation, or engage with global ideas. However, this was largely confined to active content creators, who reported more positive outcomes than passive users.

**5. Policy Implications**

*What needs to change—now*

The findings from this study highlight a growing gap between the speed of technological innovation and our ability to regulate its psychological impact. As youth report compulsive scrolling, attention collapse, and emotional fragility, a reactive approach is no longer tenable. The time has come for bold, preventive, and collaborative solutions.

**For Policymakers: Move Beyond Surface Fixes**

Many current safeguards—like voluntary screen time alerts or optional app limits—are cosmetic and easily ignored. What’s needed are **default-on protections** for minors that align with how brains actually work.

*“We need to redesign the digital environment, not just ask kids to self-regulate in a system engineered to hijack their focus.”*  
– James Breeze, CEO, Research Network

Policy recommendations include:

* **Age-appropriate algorithm design**, with reduced novelty cycling and intentional friction
* **Mandatory attention audits** for high-usage platforms used by youth
* **Mental health labelling** on social media interfaces (as pioneered in Minnesota)
* **Public investment** in longitudinal research to track neurocognitive and emotional outcomes

Singapore’s Ministry of Education has taken steps by restricting phone use in schools—feedback from youth suggests these rules are both noticed and effective. But similar national initiatives remain limited elsewhere.

**For Educators: Teach Focus Like a Skill**

If attention is the new literacy, schools must equip students to defend and develop it. Recommendations include:

* Embedding **metacognitive strategies** into curricula (e.g. attention tracking, mindfulness breaks)
* **Chunking lessons** into shorter, interactive segments to accommodate reduced stamina
* Using digital tools **with purpose**, not as distractions

*“Our brains aren’t designed for this kind of input. We need to be taught how to focus again.”*  
– 17-year-old, Singapore

**For Tech Platforms: From Profit to Responsibility**

The infrastructure to build healthier digital spaces already exists—what’s lacking is the will to deploy it.

*“The companies that built the attention economy need to take responsibility for rebuilding it—this time, with wellbeing in mind.”*  
– James Breeze

Suggested industry actions:

* **Ethical design standards** for youth-facing features (e.g. auto-play, infinite scroll, likes)
* Open **collaboration with educators and neuroscientists** to inform platform mechanics
* Transparent **reporting on youth engagement data**, including emotional impact

**For Parents & Families: Shift from Control to Connection**

Rules alone are not enough. Our findings show that the most effective parental strategies were those built on trust, shared reflection, and role modelling.

*“My mum and I started watching videos together and actually talking about them. That helped more than any rule ever did.”*  
– Teen respondent, Australia

Best practices include:

* **Starting early** with explained boundaries, not imposed bans
* Creating **device-free spaces and shared screen rituals**
* Encouraging **offline hobbies** and downtime without guilt

**For Youth: Reclaim Your Feed, Rebuild Your Focus**

The strongest voices in this study came from Gen Z themselves—expressing both concern and hope.

*“I know I need to stop scrolling all night, but it’s hard. At least now I know I’m not alone.”*  
– 15-year-old, Singapore

We suggest:

* Curating a **‘digital nutrition’ diet**—content that energises rather than drains
* Using tools like **Pomodoro timers** or focus apps to retrain attention
* Being open with peers and adults about the emotional toll—and asking for help when needed

**6. Conclusion**

*What’s at stake—and what comes next*

This study makes one thing clear: we’re not just facing a tech problem—we’re facing a generational challenge. Social media is reshaping how young people think, feel, and connect. And for many, it’s doing so faster than families, schools, or societies can respond.

Across Singapore and Australia, young people described a digital world that keeps them hooked but leaves them emotionally drained, cognitively scattered, and quietly worried about the future. Their parents shared those concerns—often with a sense of resignation.

*“We can’t stop them using it. We just hope they learn to use it well.”*  
– Parent respondent, Australia

But there is hope. This study showed not only what’s broken—but what can work. Teens who curated their feeds, parents who watched with their kids, schools that adapted their teaching—all point toward a more conscious digital future.

*“It’s not about banning everything. It’s about learning how to live with it—and still be human.”*  
– Ella Carnegie-Brown, 19, Research Network

We call on governments, educators, industry leaders and parents to act—together, and now. Because attention, connection, and emotional resilience are not optional for the next generation. They’re fundamental.

**Appendix A: Methodology**

**Screening and Participant Selection**

The study employed a comprehensive screening process to ensure a diverse and representative sample of participants. Respondents were selected based on specific demographic criteria, including age groups ranging from 13–25 years old and parents of children within this age range. The study focused on participants from two primary locations: Singapore and Australia. Participants were also screened based on their social media usage, with a preference for those who actively use popular platforms such as Instagram, YouTube, Facebook, TikTok, and LinkedIn. This careful selection process allowed researchers to gather insights from a wide spectrum of social media users, including both young adults navigating the digital landscape and parents observing its impact on their children.

**Interview Method and Respondent Tasks**

The study employed an innovative interview method utilizing the ListenLabs AI system. This advanced AI was programmed with a script supplied by the researchers, allowing it to generate text-based questions tailored to the study's objectives. Participants engaged in a voice-based interaction, responding to the AI’s questions using speech alone. The AI demonstrated remarkable adaptability, generating follow-up questions based on each respondent’s unique voiced responses, ensuring a personalized and in-depth exploration of topics.

This semi-structured approach combined predetermined themes with the flexibility to delve into emerging areas of interest. Participants were asked open-ended questions about their social media experiences, habits, and perceptions, covering topics such as the impact on focus and concentration, personal and professional development, and in-person social interactions. Respondents were encouraged to provide specific real-life examples, like describing how social media affects their ability to focus on tasks or changes in communication patterns with friends. Parents shared observations about their children’s social media use and its perceived effects on behavior and wellbeing. The AI also prompted participants to consider future implications of their social media habits on academic performance and career prospects.

This AI-driven interview method allowed for consistent data collection while accommodating the individual narratives of each participant, resulting in rich, qualitative data that offers deep insights into the multifaceted role of social media in the lives of young adults and families.

**Data Analysis Process**

The analysis of the interview data employed a rigorous, multi-stage approach to ensure comprehensive insights. Initially, all interview transcripts were processed through an advanced natural language processing (NLP) system to identify key themes and patterns. This system utilized a combination of machine learning algorithms and pre-defined coding schemes based on the research objectives. The analysis was structured around specific aspects, which corresponded to either questions asked during the interviews or properties of the responses. Within each aspect, a set of themes was developed to categorize and quantify the responses. For instance, under the aspect “Impact on Focus and Concentration,” themes ranged from “Severely Disrupted” to “No Impact.” Each response was then tagged with relevant themes, allowing for both qualitative interpretation and quantitative analysis. The system calculated the frequency of each theme, providing percentages of responses that matched specific themes within each aspect. This approach allowed for a nuanced understanding of prevalent trends while preserving the richness of individual responses.

To ensure accuracy, a team of human researchers reviewed a subset of the AI-generated themes and tags, making adjustments where necessary. The analysis also incorporated demographic data, enabling comparisons between different segments such as age groups, nationalities, and parental status. This segmentation allowed for deeper insights into how social media impacts varied across different groups. Finally, the researchers conducted a cross-aspect analysis to identify correlations and patterns across different themes and segments, providing a holistic view of the social media landscape among young adults and parents in Singapore and Australia.

**Analytic Foundations (Academic Addendum)**

The analysis of the interview data followed a systematic, multi-stage approach grounded in established qualitative research methods. Transcripts from the AI-conducted interviews were processed using thematic analysis, a widely recognized method in qualitative research (Braun & Clarke, 2006). This approach involved identifying, analyzing, and reporting patterns within the data. The process began with familiarization with the data, followed by generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.

To enhance reliability and validity, the study employed a mixed-methods approach, combining qualitative thematic analysis with quantitative content analysis (Krippendorff, 2018). This allowed for the quantification of qualitative data, providing frequency counts and percentages for each identified theme. The coding process was initially performed by an AI system trained on a subset of manually coded responses, with human researchers reviewing and validating the AI-generated codes to ensure accuracy and consistency (Saldaña, 2021).

The analysis incorporated demographic segmentation, enabling comparisons between different groups such as age ranges, nationalities, and parental status. This approach aligns with best practices in cross-cultural research, allowing for the exploration of cultural and generational differences in social media use and perceptions (Okazaki & Mueller, 2007).

Throughout the analysis process, measures were taken to ensure trustworthiness, including peer debriefing and member checking, as recommended by Lincoln and Guba (1985) for enhancing the credibility of qualitative research findings.

Full coding approach was based on Braun & Clarke (2006); content analysis by Krippendorff (2018); validation reviewed using Saldaña (2021).  
Cross-cultural reliability supported by Okazaki & Mueller (2007); trustworthiness grounded in Lincoln & Guba (1985).

**Appendix B: References**

**Academic Sources**

* Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology*. Qualitative Research in Psychology, 3(2), 77–101.
* Carr, N. (2010). *The Shallows: What the Internet Is Doing to Our Brains*. W. W. Norton & Company.
* Chiossi, L., Bahmani, D., & Ciucci, E. (2023). *Short-form video and attention: A cognitive cost of speed watching?*arXiv:2302.03714. https://doi.org/10.48550/arXiv.2302.03714
* Fardouly, J. et al. (2015). *Social comparisons on social media*. Body Image, 13, 38–45.
* Krippendorff, K. (2018). *Content Analysis: An Introduction to Its Methodology*. Sage.
* Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage.
* Loh, K. K., & Kanai, R. (2014). *Media multitasking and brain structure*. Cerebral Cortex, 24(10), 2629–2635.
* Montag, C., & Walla, P. (2016). *Carpe diem instead of losing your social mind*. Frontiers in Psychology.
* Okazaki, S., & Mueller, B. (2007). *Cross-cultural advertising research*. Journal of Advertising, 36(3), 5–20.
* Saldaña, J. (2021). *The Coding Manual for Qualitative Researchers*. Sage.
* Sherman, L. E. et al. (2016). *Peer influence via Instagram: Effects on brain and behaviour in adolescence*. Psychological Science, 27(7), 1027–1035. https://doi.org/10.1177/0956797616645673
* Twenge, J. M. et al. (2018). *Screen time and adolescent depression*. Clinical Psychological Science, 6(1), 3–17.
* Vogel, E. A. et al. (2014). *Social comparison and self-esteem*. Psychology of Popular Media Culture, 3(4), 206–222.

**News & Policy Sources**

* *Reuters* (2025). *EU launches age-verification pilot for underage online safety*. https://www.reuters.com/sustainability/boards-policy-regulation/five-eu-states-test-age-verification-app-protect-children-2025-07-14
* *MPR News* (2025). *Minnesota to require mental health warnings on social media*. https://www.mprnews.org/story/2025/07/14/minnesota-law-to-require-mental-health-warnings-on-social-media
* *CNN* (2023). *China moves to limit screen time for minors to two hours a day*. https://edition.cnn.com/2023/08/02/tech/china-social-media-minors-screen-time-intl-hnk/index.html

**Appendix A**

Key Findings Table

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| --- | --- |
| **Theme** | **Finding** |
| **Attention & Focus** | 68% of youth say social media has hurt their ability to focus |
|  | 52% report using phones during class; 15% watch videos at 2x speed |
|  | Common terms: “popcorn thinking,” “monkey-minded,” “dopamine hits” |
| **Emotional Wellbeing** | 45% report feeling worse after use; 16% feel anxious from social comparison |
|  | Teens describe “emotional rollercoaster” within seconds of scrolling |
|  | 10% found comfort in niche support communities |
| **Social Relationships** | 48% often reference online content in real-world conversations |
|  | 27% use social media *while* socialising; depth of interactions declining |
|  | Parents report reduced family time and emotional presence |
| **Learning & Work Readiness** | Teens fear they’re “losing the ability to focus or think deeply” |
|  | Homework disrupted by notifications; multitasking perceived as “normal” |
|  | Parents worry about future workforce unpreparedness |
| **Generational Divide** | Teens see benefits *and* harms; parents focus more on risks |
|  | Creators report more confidence than passive users |
|  | SG teens appreciate school phone limits; AU teens ask for more guidance |