



Scroll, Stress, Repeat:

Understanding the Impact of Online Information Overload on Urban Indian Adolescents

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Disclaimer: The views expressed in this study are solely those of the authors and do not represent the views of YLAC as an organization.

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1. Introduction

"Never before have teenagers been so connected—and yet, so overwhelmed."

- Stakeholder response from an interview

A few decades ago, people were picking up phone calls on landlines or sending short texts via beeps and dashes. Fast-forward to the '90s - India's dial-up era ushered in chatrooms, email and early online hangouts like CompuServe and AOL. Blogging picked up momentum around 1999 with LiveJournal, and then came giants like LinkedIn, MySpace, and Facebook - collectively turning our world upside-down, making digital our daily norm.¹

Now, whether it's catching up on shortcuts to binge-watch, chatting endlessly on WhatsApp groups, or scrolling through reels on Instagram, screens are where our hearts are. Even if you're trying to just "relax," you're still sucked into an avalanche of updates from friends, school, influencers, to even the news. In this age where digital devices have become extensions of our minds, young people are constantly navigating a sea of information. Every day, teenagers are exposed to countless posts, news articles, videos, reels, and stories. This constant influx can feel like an avalanche - demanding emotional, mental, and intellectual attention. While the internet has become a tool for learning, connection, and entertainment, it has also led to a phenomenon that many adolescents silently endure: Online Information Overload (OIO).

This paper explores how adolescents aged 13–19 in urban Indian contexts are impacted by this overload. With attention spans shrinking, mental health concerns on the rise, and digital habits often going unchecked, we aim to uncover how young people feel, process, and cope with the excessive exposure to information online. Our study also reflects on how this affects their well-being, self-esteem, and daily routines. Through this research, we hope to raise awareness among parents, educators, and policymakers - and most importantly, give voice to the experiences of young people who are often scrolling through stress, confusion, and comparison.

2. Literature Review

The literature shows that young people today are deeply embedded in digital life, with social media and online platforms shaping their routines, relationships, and even their emotional and cognitive development. Patterns like constant connectivity, late-night scrolling, and dependence on algorithmically tailored feeds are widespread. Platform design features, such as endless scroll, push notifications, and autoplay, encourage prolonged engagement, benefiting companies while often overwhelming users.

¹ Hafner, K., & Lyon, M. (1996). *Where Wizards Stay Up Late: The Origins of the Internet*. Simon & Schuster.

Psychological impacts include anxiety, fear of missing out, cyberbullying, and sleep loss, while neurological studies indicate that heavy digital use can alter brain structures tied to focus, self-control, and emotional regulation. In India, these effects intersect with caste, gender, language, and access differences, creating unique challenges for adolescent well-being.

2.1 Digital Habits and Consumption Patterns

In today's world, being online is not just something young people do - it's how they live. From the moment they wake up to the last minutes before sleeping, digital platforms shape their routines. Globally, adolescents are spending unprecedented amounts of time online. In the U.S., 95% of teens use YouTube and more than a third say they are online “almost constantly.”² In Europe, 36% of adolescents report being in constant online contact with friends, a figure that jumps to 44% among 15-year-old girls.³

India's digital youth experience the same global patterns, but with local nuances. Surveys suggest that 27% of Indian teens show signs of social media dependency, often reporting poor focus and lower academic performance.⁴ Urban youth typically have 24/7 access to devices and faster internet, while rural youth may share devices or use slower connections—yet both groups report high daily usage. With smartphone penetration exceeding 80% and over 65% of internet users aged 12–29,⁵ Indian youth are among the most active digital consumers worldwide. WhatsApp remains the go-to platform for messaging, Instagram for reels and visual storytelling, and (before its ban) TikTok for quick entertainment. The Times of India reported that six out of ten youngsters aged 9–17 spend over three hours daily on social media or gaming sites, primarily for entertainment.⁶ Further, many teens follow lifestyle creators or “kid influencers” whose posts mix entertainment, brand endorsements, and aspirational narratives. Teens also often follow regional influencers, whose content might focus on local culture, politics, or humour.

COVID-19 pushed these patterns into overdrive. With schools closed, online platforms became classrooms, tuition centres, and social spaces all at once. Screen time globally jumped by 84 minutes a

² Pew Research Center. (2021). *Teens, social media & technology*.

<https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022>

³ World Health Organization Regional Office for Europe. (2024, September 25). *Teens, screens and mental health: New WHO report indicates need for healthier online habits among adolescents*.

<https://www.who.int/europe/news/item/25-09-2024-teens--screens-and-mental-health>

⁴ Dubey, M., et al. (2018). Screen-based media use and screen time assessment among adolescents in New Delhi, India. *Journal of Family Medicine and Primary Care*, 7(6), 1236–1242. https://doi.org/10.4103/jfmpe.jfmpe_190_18

⁵ Taddi, V. V., Kohli, R. K., & Puri, P. (2024). Perception, use of social media, and its impact on the mental health of Indian adolescents: A qualitative study. *World Journal of Clinical Pediatrics*, 13(3), 97501. <https://doi.org/10.5409/wjcp.v13.i3.97501>

⁶ Times of India. (2023). *6 in 10 youngsters spend 3+ hours daily on social media*. [Press report]

day during the pandemic. Even teens who were previously light users became heavy users out of necessity, and many retained these habits after restrictions were lifted.

But these habits aren't just about staying connected; they also reveal deep dependence. Teens scroll for laughs, for news, for shopping ideas, sometimes within the same five minutes. This constant switching can lead to "desensitisation" - serious news, like a war update, appears right next to a meme or a celebrity shopping haul, blurring emotional boundaries and making distressing content easier to scroll past without reflection. Over time, the habit of rapid, mixed-content consumption risks turning teens into passive consumers of even serious issues.

2.2 Platform Design Features and Cognitive Load

If teens spend so much time online, it's not just because they choose to. It's also because platforms are built to keep them there. Features like endless scrolling, algorithmic feeds, and push notifications are designed to maximize "engagement," which in business terms means more time spent and more data collected.⁷

Infinite scroll plays on cognitive biases like the Zeigarnik effect - the mind's tendency to want to finish incomplete tasks.⁸ Algorithm-driven feeds ("For You" on TikTok, "Explore" on Instagram) personalise content so well that teens find themselves "just one more scroll" away from something exciting. Notifications, whether from messaging apps or streak reminders on Snapchat, spike anticipation and anxiety, making it hard to ignore the device.⁹ This design hugely benefits the companies. Every second spent scrolling generates data that fuels better ad targeting, making the user experience feel tailored while boosting platform profits. "User-friendly" features often work against the user's well-being, subtly pushing them toward compulsive engagement.

All of this creates cognitive overload. Teens often describe feeling drained after long online sessions, not because they were doing something physically exhausting, but because their brains were juggling too much, switching between memes, homework tips, political debates, and influencer ads in rapid succession. Over time, this level of stimulation can erode focus and self-control.¹⁰

⁷ De, D., El Jamal, M., Aydemir, E., & Khera, A. (2025). Social media algorithms and teen addiction: Neurophysiological impact and ethical considerations. *Cureus*, 17(1), e77145. <https://doi.org/10.7759/cureus.77145>

⁸ Mukhopadhyay, M. (2025, February). *The Curious Case of Unfinished Work*. Medium. <https://mayukhdifferent.medium.com/the-curious-case-of-unfinished-work-40e0ccf56213>

⁹ Brown, H. (*Is Your Brain Hooked on Big Tech's Puppet Strings?* <https://hanhdbrown.com/social-media-addiction/>

¹⁰ Appelbaum, N. (2021). *Drained to exhaustion by online learning, students should be given less school work*. teensparentteachers.org. <https://teensparentteachers.org/drained-to-exhaustion-by-online-learning-students-should-be-given-less-school-work/>

2.3 Psychological Effects

Heavy social media use is not just about time; it's also about mental impact. WHO Europe warns that high exposure is linked to depression, bullying, anxiety, and poor academic performance.¹¹ One qualitative study even observed that late-night scrolling was a common trigger for sleep loss, which in turn affected mood and concentration.¹² A big driver of this emotional toll is FOMO—the Fear Of Missing Out. Features like Stories and “last seen” notifications fuel the need to constantly check updates.

However, regional online spaces can also perpetuate harmful stereotypes. Cyberbullying adds another dimension. In India, caste-based bullying and gendered abuse are common, with anonymity enabling perpetrators. Online insults often carry caste undertones—terms like “chapri” are used to shame youth from underprivileged backgrounds. Girls also face gender-specific harassment, such as body-shaming and moral policing.

2.4 Neurological and Cognitive Impacts

The adolescent brain is only developing, especially in areas tied to impulse control, attention, and emotional regulation. Brain imaging of teens with excessive internet or social media use shows reduced grey matter in the anterior cingulate and orbitofrontal cortex—areas critical for decision-making and emotional stability.¹³ It also shows how heavy users also show stronger dopamine responses to online cues, similar to patterns seen in substance addiction. Over time, this “reward hijacking” makes disengagement harder. Cognitive impacts include weaker working memory, slower task-switching, and difficulty sustaining attention. Longitudinal research even suggests heavy media multitasking can predict ADHD-like symptoms.¹⁴

2.5 Gap in Literature

While existing studies offer valuable insights into usage patterns and their effects, they largely speak about teenagers rather than with them. The perspectives of adolescents themselves - what they see as their biggest challenges online, what kind of support they want, and how they navigate the digital world - are

¹¹ World Health Organization Regional Office for Europe. (2024, September 25). *Teens, screens and mental health: New WHO report indicates need for healthier online habits among adolescents*. <https://www.who.int/europe/news/item/25-09-2024-teens--screens-and-mental-health>

¹² Taddi, V. V., Kohli, R. K., & Puri, P. (2024). *Perception, use of social media, and its impact on the mental health of Indian adolescents: A qualitative study*. *World Journal of Clinical Pediatrics*, 13(3), 97501. <https://doi.org/10.5409/wjcp.v13.i3.97501>

¹³ Lin, F., et al. (2021). *Functional and structural changes in the adolescent brain with excessive internet use*. *Frontiers in Psychology*, 12, 671817. <https://doi.org/10.3389/fpsyg.2021.671817>

¹⁴ Buchard, A.; Mussack, D.; et al. (2021). *Media use, attention, mental health and academic performance among 8 to 12 year old children*. National Library of Medicine. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8598050/>

often missing. This lack of youth voices leaves a significant gap in understanding the lived realities behind the data.

Our research aims to address this by centring teens' accounts and exploring their specific concerns, priorities, and ideas for creating healthier online spaces.

3. Methodology

This study employed a mixed-methods approach, combining quantitative data from the objective questions of the structured survey with qualitative insights from open-ended questions of the survey. This methodology allowed the study to link measurable trends - such as hours of use or preferred platforms - with lived experiences, offering a well-rounded understanding of adolescent digital engagement in the Indian context. The aim was to explore how adolescents in urban India experience and cope with online information overload.

The quantitative component consisted of a Google Form survey administered to adolescents aged 13–19 years, residing in urban Indian settings. The survey was circulated through educational platforms, youth-led networks, and social media channels, ensuring representation within the intended demographic. A total of 30 respondents participated, representing a range of educational backgrounds such as humanities, commerce, science, and professional courses. The survey focused on the following areas:

- Daily screen time (excluding school or academic work)
- Content engagement patterns (platforms, categories, and types of content consumed)
- Awareness and frequency of passive scrolling
- Emotional reactions to prolonged online engagement
- Specific content triggers for feelings of stress or overwhelm
- Coping mechanisms used by adolescents
- Access to support systems (parents, teachers, counsellors)

The qualitative component drew from open-ended survey responses, where participants reflected on their feelings, identified challenges, and suggested ways to manage screen time and digital engagement. These narratives enriched the statistical findings with personal perspectives.

All responses were anonymised to ensure participant privacy. Quantitative data were analysed using frequency distributions and basic cross-tabulations to identify usage trends and their associations with emotional responses. Thematic coding of qualitative responses helped identify recurring concerns, patterns of coping, and adolescents' recommendations for healthier digital habits.

3.1 Limitations of the Study

- Sample size and sampling: With 30 respondents drawn from urban networks, findings are indicative rather than generalizable to all Indian adolescents.
- Self-report bias: The data rely on self-reports of time and feelings, which may under-/overestimate true usage.
- Limited subgroup power: Because few respondents come from rural areas and the sample skews female, we cannot make strong claims about gendered or regional differences.

4. Data analysis and Interpretation

The survey sample comprised 30 adolescents aged 13–20, with a concentration between 15 and 17 years (mean $\approx$ 16). The majority identified as female (23 of 30). Participants came from several urban centres (Mumbai, Pune, Bengaluru and New Delhi, among others) and a range of academic streams, including humanities, commerce, science and law. Hence, this mix gives us a snapshot of urban Indian teens’ digital lives rather than a nationally representative portrait.

4.1 Overall Screen Time and Temporal Patterns

Screen time outside of schoolwork is high - 13 respondents (43%) reported 3–4 hours/day, 10 (33%) reported 5–6 hours/day, and 4 (13%) reported more than 6 hours/day. Only 3 respondents (10%) reported 1–2 hours. These figures confirm that long daily exposure is the norm in this group and align with the literature’s observation of heavy, routine use among urban adolescents. For many teens, posting and staying updated are social currencies; not participating risks exclusion.

Many respondents also reported night-heavy usage. Peak engagement often occurs late in the evening and into the night (reflected in qualitative comments such as “I scroll until my eyes hurt”), which has clear implications for sleep and daytime functioning.

4.2 Platforms and Content: What Teens Do Online

Instagram is the most frequently mentioned app (directly named by 8 respondents and appearing in combination in many others), followed by WhatsApp and Netflix.

When asked about categories of content consumed, entertainment dominated, often alongside career-related or educational content. Respondents often mix formats in one session: short reels and memes, study “with me” videos, homework-related content, news headlines, and influencer posts all appear in rapid succession. The qualitative answers add important texture to the numerical trends. Many teens described following lifestyle influencers, kid influencers, and relatable “peer creators” whose content blends entertainment, aspiration, and subtle product placement. These figures serve not only as

sources of fun and fashion ideas but also as informal role models - people whose routines, purchases, and opinions shape how adolescents think about success, beauty, and social belonging.

WhatsApp groups emerged as a central coordination tool for school assignments, project updates, event planning, and simply keeping in touch with close friends. Several respondents mentioned being in multiple groups, each serving a slightly different function (family, school batch, tuition, hobby clubs), which meant notifications were constant and often difficult to ignore.

YouTube occupied a unique dual role in the respondents' digital ecosystem: a space for both leisure and serious learning. Respondents described watching everything from educational tutorials, study-with-me sessions, and subject-specific explainers to music videos, comedy skits, and gaming streams - all in the same sitting. This hybrid use, where a single platform or device delivers both academic resources and entertainment, blurs the mental boundary between "productive" and "leisure" screen time. Shifting from an exam-prep video to a makeup tutorial, or from a science explainer to a meme reel, often happens without conscious decision-making, making it extremely difficult to "switch off" once a session begins. Respondents observed that serious news and light content often come stacked in feeds, creating emotional whiplash and a tendency to skim rather than engage. The constant availability of multiple content types within the same feed or app creates a sense of perpetual choice and stimulation, which can lead to longer, less intentional screen sessions and, ultimately, the fatigue and overwhelm described elsewhere in the findings.

4.3 Automatic Scrolling, Overwhelm, and Health Effects

A significant proportion of respondents reported experiencing involuntary engagement with online platforms. Sixteen participants, accounting for just over half of the sample, indicated that they sometimes scroll without noticing the passage of time, while nine participants, nearly one-third, said they regularly lose track of time while scrolling. Only a small minority reported that this occurred rarely or never. Feelings of overwhelm were similarly common: two-thirds of respondents shared that the volume of information online leaves them feeling overloaded at least on occasion, with twelve noting this happens sometimes and eight stating it occurs often.

Concerns about physical and mental health were equally prominent. Two-thirds of respondents acknowledged that scrolling affects their health at least occasionally, again with twelve reporting it sometimes and eight noting it often. Many adolescents are aware of the harms of excessive scrolling, yet lack the practical strategies or support systems to limit their usage. As one participant expressed, "I know I should sleep by 11, but I just scroll."

Taken together, these findings suggest that excessive engagement is rarely a matter of deliberate choice; rather, it often emerges from design features and social habits that make disengagement challenging. The data bridges a key gap identified in the literature: while much research measures screen time and its outcomes, fewer studies amplify adolescents' perceptions of being "pulled in" against their will, or of recognising harm yet finding it difficult to change their habits. This perspective, i.e., teens' lived experience of compulsion, adds critical depth to the conversation on digital well-being and points to the need for interventions that acknowledge and address this lack of agency.

4.4 Stress Triggers and Emotional Responses

When asked what content causes stress or emotional overwhelm, several themes emerged - academic pressure and social comparison (frequently mentioned); news about violence, conflicts, and natural disasters; body-image and perfection-oriented posts; and political/hate content and hostile online interactions. In terms of immediate feelings after extended online time, 18 respondents (60%) said they felt "tired or distracted." Four reported feeling "numb or zoned out," and only one felt energised. While the sample size limits robust subgroup tests, qualitative answers hinted at stigmas: body-image pressure for girls and caste/class-based shaming (e.g., the use of insulting labels) for some respondents.

This emotional fatigue also points to a deeper disconnect between why teens go online and how they feel afterwards. Many begin with the intention of relaxing, learning, or connecting, but end up drained - caught in an endless stream of mixed, often conflicting content. Over time, this can normalise a state of low-level stress or distraction, making it harder to notice its cumulative impact. Such constant exposure may also dull emotional responses, as serious issues get sandwiched between memes, ads, and entertainment, subtly training young users to scroll past distress rather than process it.

4.5 How Teens Cope — Actions and Agency

The most frequently reported coping strategies were engaging in offline activities, mentioned by seven respondents, followed by taking a break, noted by five respondents. Three respondents reported distracting themselves by scrolling further, while another three described talking to someone as a coping mechanism. Several participants also highlighted using these strategies in combination, such as taking a break alongside talking to someone.

The most striking finding here is the relative rarity of help-seeking. Only 2 respondents (7%) reported ever speaking to a teacher, parent, or counsellor about how being online affects them. That disconnect — where teens adopt mostly self-directed strategies and rarely engage adults or professionals — directly links to our identified research gap: teens' voices about the kinds of help they want are largely absent from existing work. When asked what would help, common suggestions included school workshops on

digital wellbeing, tech-free spaces/time, and counsellors trained in digital stress. Teens rarely asked for censorship or bans; instead, they asked for practical, accessible support (peer groups, guided breaks, realistic tips to manage notifications).

5. Recommendations

Based on the findings of this study, addressing online information overload among adolescents requires a multi-pronged approach that integrates education, peer support, and policy-level action. The following recommendations draw from the voices of the participants themselves and align with best practices emerging globally:

5.1 Policy Integration

At the systems level, Ministries of Education and related bodies should integrate Social Emotional Learning (SEL) frameworks with a digital well-being component.¹⁵ Being smart online must go beyond safety guidelines to address emotional resilience, information discernment, and conscious disengagement. Policy-led initiatives can standardise digital well-being practices across schools, ensuring that every adolescent—regardless of location or background—receives guidance to navigate the online world with both confidence and care.

5.2 Digital Hygiene Education

Schools must go beyond teaching technical skills to include structured lessons on healthy disengagement from screens. Just as students are taught nutrition for the body, they need a “nutrition plan” for the mind—covering topics like recognising signs of digital fatigue, managing notifications, and curating balanced content feeds. These lessons should be interactive, relatable, and embedded into regular curricula rather than offered as one-off workshops.

5.3 Peer-Led Mental Health Spaces

Adolescents often trust and relate to their peers more than to authority figures. Schools and community spaces can create informal “digital detox” clubs or peer-facilitated awareness groups where students can share experiences, swap coping strategies, and normalise conversations around online overwhelm. These groups can function as safe, stigma-free zones for discussing the pressures of constant connectivity.

¹⁵ Erstad, O.; Černočová, M. (2024, August). *Social and Emotional Modes of Learning Within Digital Ecosystems: Emerging Research Agendas*.
https://www.researchgate.net/publication/383263470_Social_and_Emotional_Modes_of_Learning_Within_Digital_Ecosystems_Emerging_Research_Agendas

5.4 Scheduled Screen Breaks

Following models such as Delhi’s “Happiness Curriculum,” educational institutions can integrate scheduled non-digital periods during the school day.¹⁶ These breaks provide space for offline activities, reflective thinking, and interpersonal connection, helping students rebuild attention spans and counterbalance high digital exposure.

6. Conclusion

This study reveals a nuanced portrait of how urban Indian adolescents navigate the dense and often overwhelming digital landscape. The findings confirm that high daily screen time is not simply a product of choice, but the outcome of platform design, social pressures, and mixed-use patterns that blur the boundaries between leisure, learning, and social connection. Teens reported both the benefits and the strains of this constant engagement—using digital spaces for education, creativity, and friendship, but also experiencing fatigue, distraction, and diminished emotional processing. Importantly, the data affirms that “information overload” is not an abstract phenomenon; it manifests in the lived realities of academic pressure amplified online, exposure to distressing news, body-image insecurities, and political hostility—issues that interact with the unique socio-cultural contours of India, including gender norms and caste dynamics.

Perhaps most critically, this research underscores a gap that existing scholarship often overlooks: while adolescents are the most studied demographic in conversations about digital well-being, their voices on what they need remain underrepresented. Our participants were able to clearly articulate their struggles and propose solutions, such as practical digital well-being workshops, peer-led support spaces, and realistic strategies for managing notifications, yet only a small fraction had ever spoken to an adult or professional about their experiences. This disconnect between awareness and help-seeking points to an urgent need for interventions that are not only designed for young people but shaped with them.

Addressing online information overload, therefore, is not just a question of measuring screen time or warning about risks; it requires listening to adolescents, validating their realities, and co-creating environments where they can exercise agency over their digital lives.

¹⁶Pandita, P. (2022). *Happiness Curriculum: A New Vision Towards Education*. academia.edu
https://www.academia.edu/112382176/Happiness_Curriculum_A_New_Vision_Towards_Education

Link to advocacy material:

https://www.canva.com/design/DAGs-FFwyjs/yEyiKPXKqw2mGK2_v6n7Rw/edit