Literacy Before Login: A Scalable State Policy for Safer Social Media Use

Abstract:

Social media introduces minors to various online risks, including misinformation, privacy issues, and exploitation. Existing regulations vary by state, resulting in uneven exposure to media literacy initiatives. Additionally, there are differences in parental participation, which result in different levels of vulnerability and readiness across children. Research shows that teenagers find it difficult to discern between reliable and false information, and that systematic media literacy instruction enhances behavior and knowledge. A growing trend in policy is the implementation of school-based media literacy programs in states such as California, Colorado, and Georgia. Our concept suggests a state-mandated social media literacy requirement for platform access. The policy contains two parts. The first part is that schools will be required to deliver at least one social media instructional unit per school year, which teaches students how to address privacy, misinformation, algorithm awareness, and online risks. Second, before someone creates a new social media account, they must pass a short online literacy exam. If a user fails, it will link to reading material, and they may try again. To prevent scope creep and address societal pushback, the policy is intentionally narrow. It does not require uploading personal documents or tracking online behavior. Instead of enforcement or surveillance, the design emphasizes awareness and education. Expected benefits include increased digital citizenship, reduction of online harm, and a shared public duty for media safety. By proposing a simple and scalable solution, this research shows how focused legislation can improve online safety without burdening individuals or curtailing digital liberties.

Introduction:

The risks associated with social media use among minors have become more apparent as it has been connected to their communication, education, and relationships. Catfishing, predatory messaging, false information, and emotional manipulation are among the incidents that over half of all teenagers have encountered [1]. Many lack the fundamental knowledge required for safe online behavior, leaving them unprepared to identify and respond to these risks. Guidance at home also varies greatly depending on available resources and parental involvement [2]. With the rise of AI, adolescents further struggle to determine whether content is fake or misleading. After speaking with Group 4 (FIRE), our group recognized that AI-generated misinformation makes online content even more difficult for teenagers to evaluate. Many students cannot distinguish between human-created posts and artificial material, often trusting AI content without questioning accuracy. This overlap between AI misinformation and social media deception highlights how vulnerable minors are without strong digital literacy skills. These challenges strengthen the need for structured digital education that prepares minors to recognize false information across online environments. All current state and national rules depend heavily on age restrictions and systems of parental consent, which are very easily bypassed by simply typing in a false birth year [3]. These approaches focus on blocking access rather than developing lifelong digital skills. Consequently, they do not teach minors anything about how social media functions, so when minors eventually gain access to social media, they often lack training in evaluating online information, identifying harmful interactions, or protecting their privacy. The main issue is not young users using social media platforms at a young age, but also that they lack the skills necessary to comprehend the dangers of using them.

Our Solution:

As a result of observing the many risks teenagers face with the rise of social media, we propose a state-level policy titled Literacy Before Login, which addresses the root problem by prioritizing skill development rather than access restriction. The policy has two components that prepare minors for safe and informed participation in social media platforms. The first component is a state-mandated digital literacy curriculum that will be taught from kindergarten through high school, which will teach age-appropriate concepts like algorithmic influence, misinformation, privacy and data practices, and online safety. Since the curriculum will be identical nationwide, all students will be similarly prepared regardless of school district resources or home guidance. The second component is a required social media literacy test for creating a new account. All users in the state, including minors, must pass the assessment, which is accessed through a state portal that provides a one-year verification token and does not require personal identification documents. The test uses real-world scenarios involving posts, messages, comments, and profiles to measure a user's ability to interpret interactions safely and identify risks. It gives short explanations for incorrect answers, and users who fail must complete a brief learning module before retaking the test. When we developed our solution, we initially favored a nationwide curriculum and assessment. However, after discussing our policy with Group 7 (Echo Chambers), we came to the conclusion that it is challenging to implement a national policy consistently because states have different educational legislation and regulatory frameworks. They also noted that a state-level policy offers more flexibility, clearer authority, and faster execution. This collaboration strengthened our decision to position Literacy Before Login as a state policy rather than a federal mandate. Together, these two components combine long-term

education with practical assessment, ensuring consistent digital literacy training and requiring all users to demonstrate safe online decision-making before creating new accounts.

Evidence and Research:

A lot of research points out that minors really need some kind of structured digital literacy training way before they're given full access to social media. Teens run into all kinds of things online, such as misinformation, emotional manipulation, targeted ads, catfishing, and grooming attempts, and most of them aren't really taught how to spot or deal with any of it. Surveys from different national groups consistently show the same pattern: many adolescents struggle to distinguish between real posts and edited or fake ones, so they often guess or follow their instincts in the moment. All of this suggests that the main issue isn't just whether they have access to these platforms, but that they're being thrown into them without the skills they need to actually keep themselves safe.

Media literacy training programs are an effective way for children to be better educated online. One specific study that showcases this is "Impact of media literacy education on knowledge and behavioral intention of adolescents in dealing with media messages according to Stages of Change" [4]. This study was conducted in Iran in 2015 and involved 198 female students randomly selected. 101 of the students were put in the intervention group and 97 in the control group. Each group was given a questionnaire, composed of 7 case-based knowledge questions. The questionnaire was administered in three phases: before the intervention, after the intervention, and one month after the intervention. The education program given to the intervention group was run using 3 sessions of interactive teaching-learning methods, and students were provided with booklets [4]. After collecting the data, the statistical analysis showed a significant improvement in the intervention group, as seen in Figure 1. This study

shows that giving children media literacy education actually works to improve their media literacy skills when it comes to mass media messaging. Additionally, the education actually lasts over time and doesn't easily go away.

Required media literacy education is supported by Americans across the board. Not only do the parents of students want media literacy education, but also the teenage students want the required media literacy education. A survey conducted by the News Literacy Project showed that an overwhelming percentage of teens in America support media literacy requirements for schools [5]. The survey questioned 1,110 teenagers ages 13-18 nationwide, asking a variety of questions related to media literacy. Based on the survey, 8 in 10 teens on social media reported seeing a conspiracy theory post with varying frequency, with the same amount inclined to believe one or more of these conspiracy theories they see on social media [5]. Teens in this survey also struggled to distinguish between different types of information; fewer than 2 in 10 teens gave correct answers to the three questions about distinguishing between information types [5]. This means that teenagers might think that the information they are seeing on social media is news when, in fact, it is actually false propaganda. The best way to combat this misinformation is through education.

There is also strong evidence about misinformation specifically. Community-based digital literacy interventions have been shown to reduce misinformation susceptibility by around 20-30%, which means users become more thoughtful and more aware of how content tries to influence them [6]. Reports from PEN America and News Literacy Project show that people who receive this type of training get better at noticing emotionally manipulative posts, understanding how algorithms shape their feed, and taking a moment to pause before sharing something that

might be misleading [5, 7]. These are the exact habits minors need if they are going to safely navigate social media.

Digital literacy also helps prevent online exploitation. When teens learn how things like data tracking work, how strangers try to gain their trust, and what early signs of grooming or catfishing can look like, they're way better at noticing when something feels off. Studies on youth development also suggest that helping teens build strong decision-making skills and basic online awareness lowers the chances of them getting pulled into harmful interactions. This supports the idea that simply blocking access doesn't prepare young people for anything. These lessons also show teens how to think through different online situations and how to react when something feels sketchy or unsafe.

Overall, a lot of the research points to an education-first approach being more realistic and a lot more effective. Digital literacy training helps build safer online habits, stronger critical thinking, and better awareness of risks, things that simple restrictions can't really do on their own. And since most of these skills stick with users as they get older, they end up encouraging better long-term digital responsibility. This is the main purpose of "Literacy Before Login." Minors should not only be allowed to join social media, but also know how to use it safely and confidently once they do.

Policy Analysis (6000):

To better understand the limitations of the existing state policies, we looked further into two existing state policies: Colorado's 2024 CO H 1136 and Georgia's 2023 GA S 351. Both of these regulations meaningfully attempt to solve the issues these kids face in online safety, but are

not able to educate minors to recognize misinformation, avoid manipulation, and step away from harmful interactions

Colorado's 2024 CO H 1136 focuses on education by requiring all schools to implement an effects of social media health module for 6-12 graders [8]. The law also creates a statewide resource bank to provide information about youth mental health impacts. These are effective as they are evidence-based and help improve awareness of how social media affects individuals and their well-being. However, this policy contains significant limitations. First, the statewide resource bank is optional, and many schools are not implementing it and causing unequal education throughout areas. In addition, while the module increases the students' awareness, it doesn't actually require any form of standardized assessment to verify that the students can use the information they learned in the real world. As a result, the policy increases basic informational knowledge but doesn't actually evaluate whether students have learned practical digital literacy skills.

Georgia's 2023 GA S 351 takes a different approach by focusing mainly on access control rather than education [9]. The law requires that social media platforms need to use commercially reasonable age verification methods for account sign-ups and required parental consent for anyone under 16. Although the goal of this policy is to protect children by delaying exposure, it contains a few major weaknesses. First, it is very easy to bypass by simply entering a different birthday. In addition, because this is a restriction without any further instructions, minors who follow the law will have no experience in understanding social media risks and result in the same problem. Those who do not follow the law will have a leg up, as they would have already learned many lessons from their time online. This creates unequal levels of

preparedness, and simply delaying access simply tosses the problem later down the road. As a whole, while it protects kids early, it does not help in long-term safety.

To solve the shortcomings of these policies, it would be best to combine early education with competency requirements before minors join social media platforms. Instead of relying only on restrictions or optional materials, states could create a system that allows underage sign-ups after completing a short literacy assessment that works hand in hand with the standardized K-12 curriculum. This approach would both protect younger children and teach them how to navigate risks to make better decisions online. With this change, minors become more prepared and give everyone an equal chance at learning, encouraging early learning.

How Our Policy Fills the Gaps:

Our proposed policy addresses the weakness of both state regulations by combining the K-12 digital literacy curriculum with a practical test for account creation. When anyone has to create an account, they are required to pass a literacy quiz. If they fail, then we provide material for them to learn more about the topics. Requiring immediate understanding of these areas will help provide early exposure and the minimum understanding needed. This fixes the issue that Georgia was facing with children lying about their age. Our approach requires everyone to have an understanding, regardless of age. In addition, Georgia's approach was restrictive rather than education-focused. Requiring a digital literacy assessment instead of blocking the user entirely helps teach younger users early. On the other hand, Colorado's health education module is a step in the right direction, but it doesn't actually verify that students have learned. Additionally, the resource bank is optional to use and often lacks information. To solve this, the same assessment from creating accounts can be used to verify that everyone understands the material. The test

results and accuracy of questions can be stored in the resource bank to teach questions that students get wrong more often. Ultimately, Literacy Before Login provides a more effective approach for youth online safety by making sure that younger users develop the skills needed to use social media.

Expected Outcomes:

If this policy goes into place, it would help build a group of students who feel more comfortable and aware when they're online. Instead of being tossed into social media with basically no direction, students would already have a sense of how to look at posts more carefully and question things that don't seem right. Students would also get a better sense of when someone online is acting in a way that doesn't feel right. Since students start learning this stuff pretty early and keep seeing it all the way through high school, it's not something that shows up once and then disappears. They pick it up bit by bit over the years, kind of like any other school habit, and because of that, it actually sticks.

As students get older, they sort of fall into habits like checking where a post actually came from or pausing when something online feels weird. A lot of them also start taking a second before they react or hit share, mostly because they've seen enough examples of things going wrong. Since they go over this stuff in school for years, it isn't just a one-time thing that teachers mention and move on from. They eventually come to do it almost instinctively and without giving it much thought. It just becomes another habit in how they use the internet every day. Learning it little by little like that helps reduce some of the random misinformation people pass around online. It also means students are a bit less likely to fall for scams or get dragged

into weird situations on the internet. Plus, it helps them understand the basics of how their info gets used or tracked online, which isn't really explained anywhere else for most kids.

The annual literacy test also helps adults, not just younger students. Anyone making a new account would need to finish a short scenario-based check, which brings everyone to at least a basic level of awareness. It really doesn't need to be anything fancy, just enough so people understand the basics and know the kinds of things they should pay attention to. When more users notice warning signs on their own, harmful content doesn't spread as fast because someone usually catches it before it gets too far. The policy also spreads the responsibility across parents, schools, the state, and the platforms, so no one group has to deal with the whole problem by itself. Each part handles a piece of it. Over time, this can lead to a group of internet users who feel more prepared, more confident, and a lot less overwhelmed when they're on social media.

Conclusion:

In conclusion, the current means we have in place are not enough to adequately prepare minors for the threats found online. With the current velocity of the spread of misinformation, emotional manipulation, online exploitation, and now with the addition of AI-generated content into the fray, minors are now placed in complex digital environments without the proper skillset to navigate them safely. Some existing policies, such as those in Colorado and Georgia, are important first steps, but they lack any real enforcement or any real skill development. These gaps in the current policies may leave many students unprepared to deal with social media as it stands.

The policies that we propose offer a more effective long-term solution by shifting our paradigm from restriction to preparation. By introducing our K-12 digital literacy curriculum with a one-time media literacy test upon account creation, we ensure that minors can develop the necessary tools and skills to be able to traverse the currently clouded and dangerous digital webspace. This approach promotes equal access to media literacy education, digital responsibility, and safer participation in online activities. Rather than pushing this responsibility back to wait for minors to learn, this policy will help create a generation of users who are more aware, more confident, and better equipped to handle the realities of the digital world today.

Contributions:

Hazel Yu: For the mid-tech report, I wrote the full initial draft, including all major sections such as the abstract, updates, hurdles, expected results, and policy analysis. I organized the structure, developed the arguments, and synthesized research on harms to minors and state legislation. For the final presentation, I developed the full first draft of the slide deck. I wrote the background explanation, organized the problem framing, laid out the policy components, and structured the flow of the presentation including the research sections, policy analyses, expected outcomes, and collaboration component. For the final paper (Assignment 4.3), I wrote the abstract, introduction, and policy solution sections. I also contributed to formatting and editing the paper, including adding citations and compiling the references.

Doan Nguyen: For the mid-tech report, I mostly helped edit, format, and made sure that all the sections were well structured. For the final presentation, I did some more research on data literacy to find its benefits, outcomes, and results/statistics that we could use to better support why our policy idea works. For the final paper, I wrote the expected outcomes section and the evidence and research section. In addition, I added supporting studies, and helped make the information clearer and easier to follow.

Isadora Lee: For the mid-tech report, I did a lot of research into different studies and supporting evidence for our paper. I also came up with the initial idea for the project and how it could be implemented. Since I came up with the initial idea, I was the main point of contact when a group member had a question about the specifics of the project. For the final presentation, I helped add in the supporting graphics and helped edit the slides to be more coherent and condensed. For the final paper, I wrote part of the evidence and research section. I also helped edit the paper and added some citations.

Timothy Liakh: For the mid tech report, I began by researching the existing legislature and how we could build off of it. Using this, I created the policy analysis section and was able to work with other group members to create the problem and proposed policy. In addition, I created sections on why our policy actually solves existing legislation and why age restrictions are not enough. Finally, I formatted the citations and edited the remaining paper. For the final report, I wrote a policy analysis describing the existing legislature. Next, I focused on writing the section explaining how our policy builds off previous solutions and helped with the solutions area. Finally, I reformatted citations and helped format and edit the paper.

Michael Lam: For the mid tech report, I helped organize the structure of the assignment, and also helped revise the text into LaTex for submission. I also helped in converting our mid tech report

from pdf to slidedeck, specifically for the introduction and solutions slides. Additionally, I

helped in developing the collaboration section of the report, giving our initial thoughts on how

our team could interact with others. For the final presentation, I helped insert references to the

collaboration throughout the slide deck, and also elaborated more on the previous collaborations.

For the final paper, I converted it to a LaTex pdf and also fixed up all the references once the

paper was finished. I also helped write the conclusion of the paper.

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