
Mandating Data Interoperability as a Tool for Improving Youth Wellbeing on Social Media

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Many social media platforms are filled with problematic designs that range from annoying (e.g., excessive notifications) to devastating (e.g., bulk-add features that have connected children to pedophiles). Users express frustration with these designs and yet continue to use these platforms. Why? If an email client sent constant clickbait notifications and intermixed sponsored content with true emails, many users would not tolerate it; they would switch to a different email platform and continue emailing the same contacts. This flexibility is only possible because email obeys a standardized protocol allowing for data interoperability across platforms. If all social platforms were required to make user-posted content consumable by third parties, new and existing social media companies alike would be forced to compete for their users and could only succeed by offering users experiences they value. Users would no longer be held captive by the platforms they join and could continue connecting with the same network of people from any platform they choose. Mandated interoperability on social media platforms is not a new concept and is already under consideration in state legislatures across the United States. The purpose of this commentary is to distill its relevance to youth wellbeing online.

1 The Problem of Harmful Social Media Design

1.1 An Ecosystem of Harmful Designs

Social media platforms are packed with user interface designs that are associated with harm. These include engagement-prolonging designs—such as infinite scroll, curiosity teasers, clickbait, and buried logout buttons—that aim to keep users interacting with the platform longer than they intend to (Chen et al. 2026). These also include features that trade user privacy for platform growth, such as unsolicited friend suggestions, profiles that are public by default, and aggressive attempts to scrape users' address books (Kelly

and Burkell 2025; Mathur, Kshirsagar, and Mayer 2021). And they include designs that enable coercive advertising, such as disguised ads, seamless transitions between friends' posts and promoted content, and obligatory video advertisements that users must watch before engaging with their preferred content.

The negative consequences of these designs are wide-ranging. In many instances, engagement-prolonging designs are effective, leading users to waste their time (Nassen et al. 2023; Tran et al. 2019) and feel regret (Rixen et al. 2023; Monge Roffarello and De Russis 2023; Guo et al. 2025). In other cases, engagement-optimized feeds serve up content that holds users' gaze but does not serve them well, such as radicalizing content (Shin and Jitkajornwanich 2024; Zimmerman 2024) or self-harm content (Arendt, Scherr, and Romer 2019; Hamilton et al. 2025; Susi et al. 2023). In still other cases, features that suggest new contacts to users and encourage them to bulk-add suggested contacts have enabled sexual predators to target minors (Taylor 2025). Although these harms affect people of all ages, they have been particularly damaging to children and teens.

1.2 A Captive Audience

Why do users tolerate these exploitative designs? People routinely express dissatisfaction with attention-grabbing and privacy-invasive features (Monge Roffarello, Lukoff, and De Russis 2023), yet continue using platforms that employ them. In our studies, we routinely encounter participants who describe adopting or continuing to use a social media platform they dislike because it is the only path to specific social interactions. For example, a parent we interviewed explained that she would never have allowed her teen to join Snap, but chose to do so because it is where his high school's soccer team communicates and schedules practices. Many teens have described wanting to leave Instagram but not wanting to miss out on their friends' stories.

Users stay not because they endorse the platform's design, but because they value their interactions with other people, and they have no way to maintain these interactions without resigning themselves to any form of exploitation the platform chooses. These valued connections include reciprocal relationships with friends and family as well as relationships with creators, influencers, and online communities. Adolescents often develop parasocial relationships with media figures on social media, and these relationships can powerfully shape platform engagement and identity development (Bond 2016; Hoffner and Bond 2022). However, reciprocal friendships remain a central reason adolescents describe staying on platforms despite dissatisfaction with their design.

When young people do shift platforms, it is often en masse, for example, with surges in adoption of Snap (Lenhart 2015), TikTok (Boffone 2022), or BeReal (Kim et al. 2024). Currently, many teens say that when they adopt a new platform, they do so because their friends are already using it (Kim et al. 2024; Solomonik and Heuer 2025). Interoperability would allow for individual adoption decisions that are not in tension with teens' access to content or people they value.

1.3 The Challenge of Regulation

Curtailing these harms through legislation and enforcement actions has been an uphill battle. One approach has been to mandate precise design decisions and prohibit others, with the goal of focusing on content-agnostic designs that are specific drivers of harm. However, there are limits to relying on this strategy alone, because policymakers and attorneys are not necessarily good designers. High-quality interfaces are created through holistic design processes carried out by professional user researchers and user experience designers. This does not mean that legislators should not be involved in design-based regulation; on the contrary, it is essential that regulation target specific features to ensure that best practices are followed and to prohibit behaviors that are beyond the pale (for example, it may be useful to enact mandates to add disclaimers to certain products, require that companies remove or reorganize feeds, or require that certain features be either opt-in or opt-out). However, this piecemeal regulatory approach should complement, not replace, the important work of designing products from the outset with the goals of respecting, empowering, and caring for the people who will use them. Further, platforms that respect users' attention cannot compete against platforms designed to maximize engagement unless all platforms are forced to contend with a world in which users can switch platforms without losing their social networks.

Another approach to addressing social media harms has been to limit young people's access to these platforms. In some cases, this has taken the form of total bans, in which teens are forbidden from accessing social media at all (e.g., Parliament of Australia 2024). In other cases, it has taken the form of removing specific features only for young people (e.g., U.S. Congress 2025). Although age-gating has the potential to help reduce harm for some people in some contexts, it creates new challenges, including the potential inaccuracies of age verification, the possibility of some young people continuing to be exposed to problematic designs, a shift by some young people to more dangerous and unregulated platforms, and—most importantly—the loss of spaces where young people can spend time with others online (McAlister et al. 2024). It may be years before the long-term implications, effectiveness, and side effects (if any) of total bans are fully understood, but early work reporting on this approach reflects considerable debate (Champion et al. 2025; Fardouly 2025; Wu 2026). And teens have mobilized to collectively communicate that what they want is a better internet, not an internet where they are excluded from participating (American Academy of Pediatrics 2026).¹

1. See Design It For Us (<https://designitforus.org/>).

2 Data Interoperability as a Potential Solution

2.1 Mandating Data Interoperability

Today, the teen whose soccer team communicates and schedules practices on Snap must choose between becoming a Snap user or missing out on the interactions of a community that is central to their life. Regulators can give this young person a better set of options by requiring Snap (and any company that publishes user-generated content that is shared with other people) to create an API that allows third-party products to read from and post to their platform. With access to this API, a third party could create a Snap alternative that changes the interface and user experience but retains the conversational thread. This alternative interface could be designed to have no advertisements, not to allow solicitations from unknown users, not to include the AI chatbot that is now embedded in the Snap interface, to order content chronologically rather than via an engagement-based algorithm, or with many other changes. The teen could opt to use this alternative without missing out on any conversations with the soccer team. And fellow teammates who do use Snap would see the teen's posts and replies seamlessly.

Snap is by no means unique, and young people and their families express frustrations with other specific platforms (e.g., Instagram, TikTok (Alluhidan et al. 2024; Landesman et al. 2024)) and with social media generally (e.g., Gairola et al. 2026). What would a mandate actually require of social companies? Many U.S. states have begun to explore this, with Utah being the first to enact legislation that includes a social media interoperability requirement (Utah State Legislature 2025). Generically, an interoperability provision might state that:

Any product that allows users to share content with others must also create an API that enables third parties to read content from the platform and write content to the platform, such that an authenticated user can interact with the platform via an alternative interface.

Mandated interoperability would allow a parent to give their child access to a popular social platform via an interface that gives the parent oversight over who the child is connected to. It would also allow young people to connect to their friend group via interfaces that they feel support their individual needs and wellbeing. For example, they could opt for platforms that display content in daily digests with no infinite scrolling, or that do not intersperse sponsored content and AI slop between posts from friends.

Mandated social media data interoperability would look much like the interoperability we already see in many other communication technologies. Email users are not beholden to the design whims of the Gmail client or forced to choose between an exploitative design experience and the opportunity to continue emailing all of their connections. If they find Gmail frustrating, they can open a Yahoo account and continue emailing all of the same people. And if they do not want to migrate to a new email provider, they can choose to

use a third-party viewer like Outlook to send and receive email from the same Gmail account they have always used. Making such a switch may have costs or be non-trivial (for example, it might involve migrating address books or losing conversation history), but it would not isolate the user from their contacts. This interoperability has led to a diverse set of options for users to choose from and an ecosystem of email clients with interfaces that respect users and offer them value. The same is true of other technologies: users can continue to send SMS texts even if they switch from an iPhone to an Android phone, or they can continue to make calls to their friends even if they switch to a flip phone because they find their smartphone too distracting. These choices are only possible because of an environment that allows users to shift across technologies while remaining connected to the people they love.

2.2 Technical Feasibility and Historical Precedent

Data interoperability is well within reach for the sophisticated tech companies that dominate social media. Many decentralized protocols have been developed to enable interoperability, and existing social media companies have shown that these models can provide an effective foundation for a global platform. For example, Bluesky, a Public Benefit Corporation seeking to reshape the social media experience, developed the Authenticated Transfer Protocol (AT Protocol) to enable users to preserve their data and connections to other people across platforms (Kleppmann et al. 2024). Separately, the World Wide Web Consortium (W3C) developed the ActivityPub protocol, which enables the “Fediverse,” a collection of federated social platforms with a common communication standard (Gehl 2025; La Cava, Greco, and Tagarelli 2021). This includes Mastodon, a non-profit social media platform with nearly a million monthly active users (Perez 2026). Numerous other open protocols and platforms built upon them (Ding et al. 2025) have demonstrated that interoperability is achievable. Among others, these include Pixelfed, Matrix, Farcaster, and the Decentralized Social Networking Protocol.²

Even popular social media platforms that maintain centralized data have explored interoperability, providing proof-of-concept evidence for its sociotechnical feasibility. For example, Threads, a microblogging platform developed by Meta (Meta 2023), partially implements the ActivityPub protocol, allowing users to connect to the Fediverse. X (formerly Twitter) publishes an API that allows third parties to create client applications for consuming content and communicating with others on X, although access to this data has been fully monetized and free-tier developer accounts have been discontinued (Wong, n.d.). In its earliest days, Facebook created a bot that allowed MySpace users to scrape and import their data to Facebook, creating a mechanism by which Facebook could become a third-party client for MySpace content (Doctorow 2022). This gave users the freedom to maintain the social connections they had developed on MySpace while switching to the Facebook front-end experience. (Facebook has not, however, given users

2. Pixelfed (<https://pixelfed.org/>); Matrix (<https://matrix.org/>); Farcaster (<https://farcaster.xyz/>); Decentralized Social Networking Protocol (<https://www.projectliberty.io/dsnp/>).

the same tooling or freedom to leave.) YouTube offers a limited API that allows users to share and respond to YouTube content through other platforms (Google, n.d.). These and many other examples make clear that mandating interoperability would not present insurmountable technical hurdles.

Mandated interoperability also has a long history as a regulatory tool and is far from a new concept. Interoperability across social media platforms, in particular, is already gaining momentum as a topic under consideration in state legislatures across the United States (e.g., California State Legislature 2026; Utah State Legislature 2025; New York State Legislature 2026). In practice, interoperability has been applied successfully to improve competition and consumer choice; in the literature, scholars have made the conceptual case for it and called for action. Of particular relevance to this commentary, Denart et al. (2023) explore mandated interoperability of social media platforms as a means of addressing monopolistic behavior and threats to epistemic integrity posed by current platforms. They outline a concrete approach to achieving interoperability, describing seven forms of information that platforms should be required to expose. Similarly, Brown (2020) argues for mandated interoperability to combat anti-competitive practices, calling for its rollout across technology domains, including e-commerce, smartphone operating systems, online payment platforms, app stores, and others.

There are already indicators of the political and commercial viability of mandated interoperability of social media platforms. The state of Utah passed the first “Digital Choice Act” in March 2025, mandating both data portability and interoperability (Utah State Legislature 2025). Other states, including California, New York, Minnesota, and more, have since followed suit (California State Legislature 2026; Minnesota Legislature 2026; New York State Legislature 2026). These bills include provisions that go beyond interoperability, including data downloads, the right to account deletion, and portability of a user’s entire social graph. These requirements may offer additional protections to consumers, but they are not essential to enabling interoperability; policymakers can choose to couple portability and interoperability provisions or to separate them.

The process of enabling interoperability is not necessarily free from risks or challenges. These challenges include the work of determining standards and infrastructure approaches while protecting user privacy. For example, third-party apps for minors would need to follow safety- and privacy-by-design standards that ensure that safety mechanisms (e.g., reporting, blocking) are transferred between platforms and behavioral data are not collected for marketing purposes. However, the success of interoperability across other communication technologies, the precedent of social media platforms themselves successfully implementing ad hoc approaches to interoperability, and the large body of existing research outlining lessons learned and strategies for facilitating successful interoperability rollouts in other contexts (e.g., Frantz et al. 2026; Guimarães et al. 2019; Kierkegaard 2015; Iroju et al. 2013; Sharma and Panigrahi 2015) all point to the feasibility and promise of this approach.

2.3 How Interoperability Can Facilitate Wellbeing-by-Design

Mandated interoperability can facilitate young people's wellbeing through several different mechanisms. These will dovetail to dramatically reduce the harms young people currently face online, while also bringing positive collateral changes for internet users of all ages. We elaborate on five of these mechanisms and their benefits below.

2.3.1 Design by Designers

Interaction design is a rich discipline, and product designers at major tech companies have deep expertise in achieving their design goals. Today's social media harms are not a result of failed design; they are the result of problematic incentive structures and a lack of marketplace competition that have led to design goals that are at odds with youth wellbeing (such as goals to capture attention and prolong engagement). The best way to correct these harmful designs is not for lawyers, child advocates, or academic researchers to stand in for designers. It is to change the design goals that designers are pursuing. Prescriptive designs from non-designers are likely to lead to a reactive, whack-a-mole design strategy that is useful for addressing targeted shortcomings but, on its own, insufficient for overhauling the social media ecosystem. Mandating interoperability will require designers' goal to shift from "maximize user engagement" to "create a product young people want to use and parents feel confident letting them use." The best way to create valuable products that do not cause harm is for professional designers to conduct holistic design processes with a design goal of maximizing the quality of the user's experience.

2.3.2 Decreased Paternalism and Increased User Choice

Although it is clear that social media platforms can cause harm (Arendt, Scherr, and Romer 2019; Chen et al. 2026; Hamilton et al. 2025; Shin and Jitkajornwanich 2024; Taylor 2025), it is not always clear which designs are harmful to which young people, how harmful they are, or in what contexts they cause harm. While autoplay and infinite scroll can induce dissociation and lead to regret (Baughan et al. 2022; Lukoff et al. 2021), they can also provide an enjoyable lean-back experience where users explore content they find interesting (Lukoff et al. 2023; Lukoff et al. 2021). Some families may find embedded AI tools to be helpful for their teen while others may find them inappropriate. A competitive landscape that presents users with a diverse range of designs will enable families to choose the experience that meets their needs.

2.3.3 Access for Young People

Teens routinely describe deriving great value from interacting with others on social platforms (Alluhidan et al. 2024; Denart et al. 2023). They use social media to workshop their original poetry, learn about the college application process from peers, find communities that share their niche interests, and much more. Bans may offer some benefits,

but they also reduce access to these benefits, fail to protect some who work around age-gating, and may lead to greater harm for others who migrate to even more dangerous and unregulated platforms.

2.3.4 Enabling Youth-Led Platform Design

It is possible that some teens will choose to lead the way in designing and building new platforms if they are given access to interoperable social data. Young people build games for Roblox (Choi, Choi, and Seering 2025), distribute original apps on the app store (Braun 2012), create and moderate Discord communities (Yoon, Zhang, and Seering 2025), and self-organize to advocate for the tech ecosystem they want (Geismar, Qureshi, and Haugen 2025). Data interoperability would allow hobbyist teens to design original interfaces, allowing them to explore personal solutions, collaboratively build platforms with peers, and lead the way in showing the public what teens value.

2.3.5 Realizing the Promise of Existing Good Actors

Platforms like Bluesky and Mastodon have already set an example for other companies by voluntarily creating open, interoperable ecosystems. However, good actors cannot solve this problem alone, because young people are already invested in relationships on closed platforms that they cannot port unless their network of friends moves with them. Mandating interoperability from all platforms is the only way this model succeeds.

3 Responding to Mandated Interoperability

There is much that the online trust and safety community could do in the wake of mandated interoperability to catalyze youth wellbeing online. Design researchers should lead the way in developing prototypes of novel interfaces that serve users well, and this work should be conducted in partnership with young people. Clinicians and researchers in clinical disciplines can educate patients and families about the availability of alternative interfaces and describe the design characteristics to look for in a social media interface. Education researchers can develop and assess digital literacy curricula that help young people determine the entry points to the online social world that are best for them. By developing state-of-the-art third-party experiences, the research community can demonstrate how social media can enhance youth wellbeing (rather than harming it), creating proof-of-concept exemplars for industry and presenting consumers with a vision of what they should demand from the products they use.

4 Conclusion

Design harms on social media are not accidental or a reflection of poor design; they are a reflection of successful design in pursuit of a profit motive that is misaligned with users' interests. Requiring social platforms to make their content interoperable would enable the development of competing interfaces that offer users alternative ways of continuing to interact with their friends and communities online. This, in turn, would push large social media companies to compete to retain their users by delivering an experience users value. Today, there is little pressure for large companies to do so, because their users are trapped on closed networks and cannot maintain their ongoing social conversations if they choose to leave. Rather than prescribing individual platform features, regulators can enable a healthier internet by requiring interoperability that allows young people to choose the platform experience that best supports their wellbeing without sacrificing the relationships and communities they value.

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Dr. Hiniker has served as an expert witness in a federal-level and a state-level litigation case concerning digital technologies, and is a member of the Knight-Georgetown Institute's 'Problematic Use' working group.

Dr. Radesky has served as an expert witness in state-level injunction cases defending social media safety laws, receives a research grant from Common Sense Media, and is also a member of the Knight-Georgetown Institute's 'Problematic Use' working group.

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