Boston Children's
Digital Wellness Lab

Creating a Safer Social Media Ecosystem

Recommendations for Industry

Date of Release: October 2023

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HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

Boston Children's Hospital

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Introduction

The Need for Nuance and Context When Designing Tech for Youth

As has been widely reported, the United States Surgeon General led for social media companies to take concrete steps to help safeguard young people and their mental health and to help advance scientific research investigating how product design may impact users' safety and well-being (Office of the Surgeon General, 2023).

In order to successfully address safety and well-being concerns related to social media use, it is important that we understand how specific, yet common characteristics of platform design associate with key outcomes of interest, like youths' mental health. Social media effects are related to context and individual characteristics (Masur et al., 2022; Valkenburg & Peter, 2013), with many factors that may contribute to positive or negative effects remaining unrelated to a platform's design itself (e.g., bullying as a social context, mental disorder as a pre-existing vulnerability).

The interplay between users and design (e.g., selective use behaviors), and the limited capacity of platforms to mitigate all potential negative outcomes,[1] makes it critical for tech developers to allow users flexible ways to individualize their experience on the platform for their safety and well-being. This is evident in existing and agency-focused safety settings already on many popular platforms (e.g., blocking, reporting, content preferences). While these safety features enable users to manage content and their engagement with other users on a platform, they often remain limited in enabling users to manage their experiences with important aspects of a platform's design.

In our recent Pulse Survey, Exploring the Nuances of Social Media Use and Experiences, we took a unique approach to investigating how general types of in-platform design spaces (Chats/Messages, Search Pages, Short Video Content Feeds, Stories) over four mainstream platforms (YouTube, Snapchat, TikTok, Instagram) associated with critical aspects of digital wellness including online safety experiences, social relationships, and psychological health.

[1] For example, users partially define how a social media platform functions as a social and technological system, making intentional safety updates difficult and (at times) unpredictable due to a lack of control regarding how users respond to design changes (see Matias & Write, 2022)

Using this approach, we found that **adolescents felt that the impact of social media on their well-being differs dramatically across these in-platform spaces.** When contrasting between each, youth reported their use of Chats/Messages improved their social relationships, while use of Short Video Content Feeds worsened their attention span, but improved their stress levels (relative to the remaining spaces). The same was true for youths' reported safety experiences, like having had an unsafe or uncomfortable experience. Youth reported having these experiences more often in some areas over social media (i.e., Chats/Messages, Short Video Content Feeds) than others (i.e., Stories). Altogether, these results underscore the need to account for nuance and context when approaching the study of social media product design. Social media use impacts youth differently (Valkenburg et al., 2022), and these results highlight that different design spaces existing across social media platforms may play a key role in driving differential outcomes.

Recommendations

One Size Doesn't Fit All

These findings, taken with new recent reviews (e.g., Valkenburg et al., 2022), make clear the need to create standards to improve platform design in order to facilitate the safety and well-being of youth according to their unique needs. As such, we're encouraging platform designers to consider some clear design updates we believe would help youth better manage their use of social media in ways that support their personal safety, functioning, and well-being:

1. Enable youth to easily manage their exposure to unique types of in-platform spaces via persistent settings, and;
2. Provide youth with easy access to a chronological version of any content feed that sources content from the user's social network (e.g., friends, following list).

These recommendations — detailed below — are applicable to any platform, revolve around the implementation and/or extension of existing design features, and enable tech companies to do what they do best: to build engaging and useful products. We know that social media affects different users in different ways, thus a one-size-fits-all approach is not possible. Applying these two design recommendations would enable all users to determine their engagement with platforms in a way that fits for them, given their personal vulnerabilities and needs.

Recommendation 1

Create Easy to Use and Persistent Settings for Users to Manage their Exposure to Unique In-Platform Spaces

Research has shown that youth often manage their online experiences on their own (Bickham et al., 2022; Carter et al., 2023; Thorn, 2021), suggesting that the best way to safeguard their online health and safety is by providing them with the tools to adequately and independently manage their experiences online.

Default settings and features on a platform, however, can directly undermine users' capacity to manage their online experiences by imposing on users predetermined options set by the platforms themselves (Smith et al., 2013). New or highlighted features often get integrated into more established, in-network spaces in some capacity.

Many platforms currently employ default design features that guide users' towards consuming out-of-network content (i.e., content produced by users not included in their social network) over recommended content feeds. One example includes when platforms embed Short Video Content Feeds into other content feeds youth may use more conventionally (e.g., Stories) to increase their exposure to and/or engagement with Short Video. Platforms also selectively showcase certain in-platform spaces prominently (e.g., listing them in the platform's primary navigation bar), while relegating others to obscure menus. Instead of making diverse types of design spaces available for users, these practices may directly undermine a young person's ability to use social media strategically and in ways that align with their personal needs.

Developers can act on this opportunity to increase the flexibility of platform design by creating ways for users to independently curate the spaces they use within a given platform. This could include allowing users to pick which kinds of online spaces they want to encounter when first opening/launching an application (e.g., choosing their default page) and allowing them to opt out of engaging within certain spaces that they may be seeking to avoid (e.g., provide settings for them to moderate their exposure to different content feeds and recommendation systems). This approach would enable platforms to continue promoting new types of design spaces, but allow users to opt out of these promotional efforts. This would also give youth the opportunity to avoid exposure to and/or use of design spaces that they might feel undermines their psychological health or safety. This is especially important considering that social media design will continue to change, with each update posing the potential to affect young user segments differently in ways that may not be immediately apparent.[2]

[2] Environmental systems (i.e., ecosystems) maintain unpredictable properties as they evolve (Beckage et al., 2011).

Recommendation 2

Facilitate Access to Chronological Feeds

Platforms regularly prioritize recommended content, but do not always provide users with easy access to alternative ways of consuming content. Chronological feeds represent a conventional and transparent content administration mechanism.

While recommendation algorithms are not inherently bad, in some circumstances they may exploit underlying vulnerabilities in young people with certain medical disorders. For example, there is some evidence that youth suffering from anxiety or depression focus their attention more on negative / threatening information, leading to the continuation or worsening of their mental health symptoms (Everaert & Koster, 2020; MacLeod et al., 2019).

As chronological content feeds always order content according to when it was published, they do not pose the same potential for harm as adaptive recommendation algorithms, which may fine-tune content recommendations based on content themes users are currently paying attention to (or having trouble disengaging from). Thus, **chronological content feeds represent a viable option to provide youth a way to keep in touch with their designated social network without having to worry about the potential of being unduly influenced by a recommendation algorithm.** Lastly, making chronological versions of content feeds widely accessible would provide researchers with a universal benchmark to assess the relative impact of recommendation systems (e.g., Guess et al., 2023). From our standpoint, this approach would be a win-win all around.

[3]Engagement with recommendation algorithms optimized by attention may inadvertently play a role in driving worsening mental health outcomes under certain circumstances. Attention biases have been shown to fluctuate over time, expressing themselves under certain conditions, like when someone is distressed, and in certain ways (e.g., allocating more attention towards negative/ threatening information, difficulty disengaging one's attention from negative/threatening information; Everaert & Koster, 2020; MacLeod et al., 2019). To our knowledge, these linkages between attentional biases, context, mental health symptoms, and select forms of social media use have yet to be causally evidenced, but warrant ongoing consideration – particularly, due to the rate at which algorithmic systems change, their level of complexity, and opaque nature (Kitchin, 2017). Whether such an effect is clinically or statistically significant might rest on how much attention is optimized by a given recommendation algorithm, its degree of adaptability or responsiveness, and the surrounding context of its use, like when and how a vulnerable user engages with it.

Conclusion

As the digital landscape evolves, platform designers must continually ensure youth can use their applications in ways that support their personal functioning and well-being. **The goal should be to enable youth to enjoy the spaces that are positive for them and avoid the ones that they feel impact them negatively,** which we believe starts with ensuring they can access and regulate their exposure to unique online spaces. To facilitate such user-driven optimization, navigation of platform settings should require minimal effort on the part of users looking to curate their online experiences (Fogg, 2009).

Platform designers can take these simple steps to help youth better manage their social media use, irrespective of the application. We hope these suggestions serve as a basis for an ongoing and shared pursuit — to cultivate safer social media experiences for youth.

Recommended Readings

The effects of social media are wide-ranging and complex, often depending on a host of factors. Despite this, narratives around social media often skew negative and fail to account for important nuances. The recommended readings below include current and emerging perspectives regarding the study of social media and youth mental health.

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APPENDIX: REFERENCES

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Boston Children's
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The Digital Wellness Lab at Boston Children's Hospital and Harvard Medical School seeks to understand and promote positive and healthy digital media experiences for young people, from birth through young adulthood.

LEARN MORE

The Digital Wellness Lab is a mission-driven organization dedicated to understanding and promoting wellness in the digital age. For more information about our work, please visit digitalwellnesslab.org or contact Cori Stott, Administrative Director, at dwl@childrens.harvard.edu

BECOME A SUPPORTER

The Digital Wellness Lab convenes supporters from healthcare, technology, media, and entertainment to deepen our understanding and address the future of young people's healthy engagement with media and technology. If your organization is interested in becoming involved as a financial supporter, please email us at

For more information about our work, please contact Cori Stott, Administrative Director, at dwl@childrens.harvard.edu