

Well-being: Problematic Use

I am continuing to share updates on our 4 priority well being topics.

We aligned to focus on these core well-being topics

	Rationale for selection
Bullying & harassment	Highest-rated mission-driven <i>critique</i> among stakeholders with lower cross-functional investment at the company.
Connections	Highest-rated mission-driven <i>praise</i> among stakeholders with lower cross-functional investment at the company.
Emotional impact	This is a big bet topic. While emotional topics did not rank highly in our data (besides amongst academics) there is increasing interest from leadership and related questions have come up at recent senate hearings.
Problematic use	This is a big bet topic. While this topic did not rank highly in our data (besides amongst the media), this is an area where many stakeholders' opinions are loosely held, and thus has a greater chance of being influenced by media cycles or events. This topic has come up recently in popular media (e.g., The Social Dilemma) as well as senate hearings.

* Limited work on suicide and self-injury also taking place

[\[source\]](#)

Last time I gave an update on Bullying and Harrassment and also published a one pager And I'll cover Problematic use today We had picked this as a big bet topic. Over the past year or so we've seen this topic gain traction.

The prevailing critiques focus on how social media companies deliberately manipulate people by designing “addictive” products to trick them into “mindlessly scrolling”

Political Hearings - Focus on designing addictive products

“So, Mr. Zuckerberg and Mr. Dorsey, you profit from your company's hooking users to your platforms by capitalizing on their time. So yes or no, do you agree that you make money off of creating an addiction to your platforms ...?”

(Rep Johnson, [March 25, 2021 of the House Committee on Energy & Commerce](#))

Popular media - focus on manipulation

“A lot of people think that Google is just a search box and Facebook is just a place to see what my friends are doing. What why don't realize is that there are entire teams of engineers whose job it is to use your psychology against you.”

([The Social Dilemma](#), Netflix 2020)

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We often hear/ read how Facebook INTENTIONALLY creates products to be addictive--often to increase profit for the company or how Facebook manipulates people by leveraging human psychology against users (aka Social Dilemma)

“Addiction” vs. “Problematic Use”

- “Social media addiction” is a colloquial term, not a formal clinical diagnosis.
- We and other experts use the term “Problematic Use” as a more accurate term to describe habitual or undesired use of Facebook.
- Definitions vary widely, but internally we define problematic use as **a lack of control over social media use that leads to negative life outcomes.**

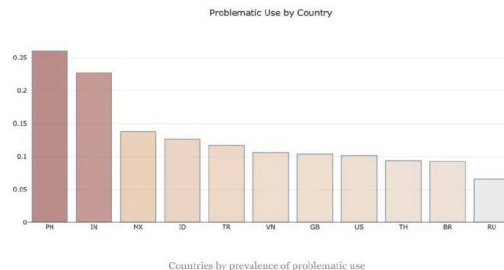
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[Talking points]

The first thing I want everyone to remember is that “Social media addiction” is a colloquial term. To date no formal clinical diagnosis relating to “social media addiction” in either the Diagnostic and Statistical Manual of Mental Disorders or the International Classification of Disease, “So there is no psychometrically validated tool to detect or measure it.” “Rather, we-- and a number of external researchers—use the term Problematic Use which is defined “a lack of control over social media use that leads to negative life outcomes, examples include disruptions in productivity or sleep, or suffering social relationships.” Of all the well-being or societal impact related topics, this is probably one of the hardest to study. And I will walk you through those “The first is the wide range of definition of problematic use that can make the research on this topic difficult to parse.”

The lack of an agreed-upon definition of problematic use results in varied estimates.

- Internal research, suggests it affects ~3% of US Facebook MAP. This increases to 10% if the definition is broadened to include feelings of guilt about Facebook use (see figure).
- External estimates are even more wide-ranging, from ~2.8% to as high as 48%, depending on definition (not shown).
- Irrespective of the definition, there is substantial cross-country heterogeneity in estimates.



Source: Buffone, Ross, & Diuk. 2019. [Facebook's measurement strategy for problematic use](#).

-Internal research using the definition I just mentioned, finds that approximately 3% of US Facebook MAP report problematic use. □-However, this estimate increases to 10% when the definition is expanded to capture feelings of guilt around time spent on Facebook. □-External estimates of problematic social media use are even more wide-ranging, from ~2.8% to as high as 48%, reflecting the variety of ways that problematic use is defined and measured across the academic and practitioner literatures □

A wide range of factors drive the impact of social media on someone's life. Research rarely capture this.

- As with a lot of topics, research on problematic use has been yet unable to make causal inferences. It remains unclear if problematic use is caused by social media or if it's a symptom of other psycho-social problems.
 - For instance, we know that certain personality characteristics, such as narcissism and neuroticism are associated with problematic use ([Gerson et al., 2016](#); [Atrozko, 2018](#)).
- Even robust studies that use experimental techniques—including a [forthcoming paper](#) from Stanford, Harvard, and NYU researchers—rarely overcome expectation effects and sampling challenges.

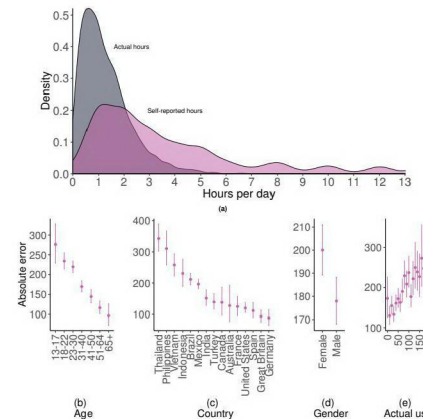
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Another limitation--which isn't unique to this area--is causality. But what is unique here is because problematic use rests on negative life outcomes, it's difficult to know if social media is causing those outcomes, or if those outcomes drive people to use social media. For example, does social media disturb people's sleep? Or do people use social media when they can't sleep.□A number of external experts--including Amy Orben - she is a fellow researcher in Cambridge and is quite well known in this field - calls out that the relationship is probably bi-direction and complex.□Even some recent studies by very well known researchers Gentzkow and Alcott - who also extensively study polarization)-- that models self-control and habit formation on social media via an experiment, but even the reserchers themselves note limitations related to sampling and contamination effects.□

Time spent is a common—but poor—proxy for identifying problematic use

- External data relies on stated time spent. This is flawed for a number of reasons:
 - There is no clear threshold past which time on social media becomes “problematic”.
 - Many external studies rely on self-reported time spent, which is notoriously unreliable (see figure). [\[source\]](#)
- Evidence from [internal research](#) suggests that there are **more reliable behavioral proxies** for identifying problematic use:
 - “Passive” consumption
 - Frequent low-engagement sessions
 - Disproportionate night-time usage
 - Repetitive app checking
 - Receiving and responding to more push notifications [\[source\]](#)

Self-reported vs. actual time spent on Facebook

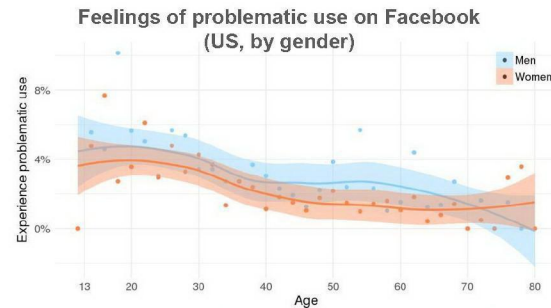


Source: Ernala, Burke, Leavitt, Elison. 2020. [How well do people report time spent on Facebook? An evaluation of established survey questions with 7 recommendations](#)

The other limitation of external research is that they rely on stated time spent—This is flawed for a number of reasons:—There is no clear threshold past which use becomes “problematic”. For example, People who spend “excessive time” on social media may find that time consistently beneficial, such as those who use it for job searches, small business promotion, or connecting to friends and family. In other words, the focus should be on quality or types of interactions over quantity. —Many external studies rely on self-reported time spent, which is notoriously unreliable. This has been shown in both our internal AND by external researchers .—This is particularly problematic because there is research showing that measures of well-being are often associated with mis-reporting of time spent. —Rather, our internal research suggests that certain browsing patterns are more reliable behavioral proxies for identifying problematic use, such as the ones listed here.—“Passive” consumption —Frequent low-engagement sessions —Disproportionate night-time usage —Repetitive app checking —Receiving and responding to more push notifications [\[source\]](#) All this is to say that it is IMPERATIVE that we not take every published findings at face value because there are several limitations. And that a lot of what is written in the media are loosely held opinions -That said, we DO know that some people are at higher risk of problematic use

Problematic use is more common among teens/ young adults, but isn't necessarily a "teenage girl" issue.

- Problematic use IS more common among teens and people in their 20s.
 - This is consistent with younger people having problems with [self-regulation](#).
- People commonly believe that women and girls report more problematic use of social media.
 - Findings are mixed across external studies, however, internal research leveraging surveys *and* log data finds that men are 1.3x as likely as women, on average, to report feelings of problematic use of Facebook.



Source: Burke and Cheng, 2018 [Problematic Facebook Use: When people feel like Facebook negatively affects their life](#)
'Problematic Use' in this study was defined by self-attribution of a serious life problem (sleep, work, or relationships) to Facebook and either feeling a lack of control over usage or extreme FOMO.

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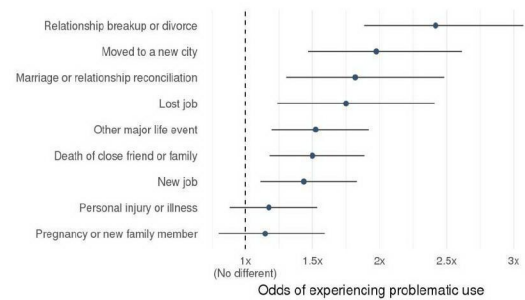
Both Internal and external research DOES find that problematic use to be more common among teens and younger people. □- But this alone isn't surprising--it's highly consistent with well-documented research on how the adolescent brain self-regulates. (when I publish my one-pager, I will link to this. Its very interesting) □-There are some loosely held opinions that women and girls are more likely to report problematic use □-Finding in external studies are inconsistent on this point. Some report higher levels of problematic use among women, others find higher levels among men. These studies often leverage self-reported data. □ -However, our internal research--which leverages log data-- we find that men are more likely than women to report feelings of problematic use. □

Appendix

A wide range of factors drive the impact of social media on someone's life. While the causal direction remains unclear, we know some people are at higher risk.

Overall, it remains unclear if problematic use is caused by social media or if it's a symptom of other psycho-social problems.

- Personality traits such as extraversion, narcissism, and high levels of neuroticism are highly correlated with problematic use of Facebook ([Gerson et al., 2016](#); [Atrozko, 2018](#)).
- Social insecurities and low self-esteem ([Faelens et al., 2019](#)), loneliness, fear of missing out, and fear of negative social evaluation ([Jung et al., 2017](#); [Albers et al., 2019](#)) are also associated with higher risk.
- Major life events in the past two months were also found to be associated with feelings of problematic USE (see figure).



Source: Burke and Cheng, 2018 [Problematic Facebook Use: When people feel like Facebook negatively affects their life](#)

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[Talking points]

Impact of social media is confounded with many other factors (e.g impacts of smartphones, internet use, gaming, shopping) and varies from one person to the other based on personality traits, intention of use, major life events, and preconceived perceptions about social media

The direction between social media use and negative life impacts is inconclusive (e.g. are lonely people using social media more or is social media using leading to loneliness?)

Most research points to associations between time spent using social media and negative life impacts rather than causation (To help transition to the next slide) We know there is a percent of our users who are more vulnerable but we do not know whether products designed to help them are effective in supporting them gain more control over their use or if they are even aware of these products.