

Document Provided in Native Format

Defendant's Exhibit

DX0345

Case Number:
D-101-CV-2023-02838

Late Night Use[☾]

IG Mental Well-being, Problematic Use • Strategy and Design

[A/C Priv] • Communities Review • Aug 4 2022

Objectives

Goals

1. Align on definition and strategy for Problematic Use
2. Align on interventions for Late Night Use, specifically Quiet mode

Non goals

1. Measurement Feedback
2. Frequent Use

Executive summary

1. **Teens Problematic Use (PU) is the Mental Well-being team's priority based on IG and CWB leadership guidance**

18.3% of WAU IG teens (over one week) exhibit behaviors associated with problematic use overall ([ref](#))

PU and self-perceived PU is a [driver of churn](#). 17% of resurrected users select 'Too much time on IG' as one of the main reasons (#3) for leaving the app

1. **Our first focus area for H2 is late night use (a PU sub-behavior)**

IG [lags on teens late-night investments](#) compared to other apps – we can change the tide and lead in this space if addressed now

1. **This review focuses on the overall strategy for PU, and specific H2 interventions to address teens late-night use**

Quiet mode: A controls-based bundle that helps teens manage their relationship with IG at night – fewer engagement triggers to pull them into the app, and a less stimulating experience when browsing the app

Problematic Use

Context and Strategy

Framing

Context

IG plays a key role in young people's mental well-being that can affect their usage of the app—both if and how they use it. Our team helps IG acknowledge, understand, and proactively address its role in teen mental well-being.

Vision & Approach

When we've succeeded, IG continues to be a safe space for teens to actively engage with their community and feel good about the time they spend on the app.

Reduce behaviors of **Problematic Use** and **increase sense of control** by landing a steady drumbeat of expert-backed visible products that support teen well-being.

Success statement overall is “People have the tools that they need and are empowered to control their time and experiences on our platforms”

What is PU and why we should care?

Problematic Use

- Occurs when people feel they lack control over their usage of technology and this leads to negative life impact (e.g., on sleep, productivity, parenting)

PU x Meta

- 1 of 4 priority areas for [Meta well-being strategy](#) in 2022
- Key experts and policy stakeholders advocate for us to focus more on it - we are not yet on track for long-term success

PU x Instagram

- 18.3% of IG teens WAU over one week exhibit behaviors that may reflect [problematic use](#)
- PU is among the [top WB issues](#) teens report experiencing, and a driver of [churn](#)
- We already shipped Take a Break (for Long Sessions) and Topic Nudge (for Passive Use); in H2 we plan to prioritize Late Night Use interventions and understand Frequent Use in detail.

Success Definition

H2 Goals

1. Reduce behaviors associated with problematic use by shipping incremental PU interventions - test 3 and launch at least 1 with an external drumbeat narrative
2. Set baseline to goal on adoption & behavior reduction next half

2023+ Commitment

1. Reduce teen experiences of PU by X%
2. Reduce teen PU proxy behaviors by Y%
3. Increase adoption of PU interventions from X% to Y% of global teen WAU

Slide 7

- 1 Can you help me understand the difference between 1 and 2?
Stephanie Moyerman, 8/17/2022
- 1 @smoyerman@fb.com sure - #1 is the north star, which will be measured via survey whereas #2 is a reduction in proxy behaviors based on logged data (to be used as a proxy for #1)
Gargi Apte, 8/17/2022
- 1 have we defined metrics and countermetrics we'll track this half?
Emily Dalton Smith, 8/18/2022
- 2 @georgy@fb.com is working on the detailed success criteria but yes we will track adoption (enabling QM) with CTR from the upsell and organic, retention (keeping QM enabled) and counter metrics will be IG critical metrics and surface specific guardrails for notifis, IGD, active presence etc.
Gargi Apte, 8/18/2022

Late Night Strategy

Why Late Night?

In [collaboration](#) with CWB, we identified 4 critical PU sub-areas related to potentially problematic on-platform behaviors

Of these 4, **late night use is the team's top priority for H2 2022** as negative impact of poor sleep is well-documented ([ref](#)) and this is where we have coverage gaps for ~8% of teens

Problematic Use				
Sub-area	Teen prevalence	Problem severity	Instagram coverage	TikTok coverage
Late night use Late night usage/during times that are likely displacing sleep for most people	7.4% of teens WAU (over one week) exhibit one or more late-night behaviors (12am-4am)	Medium	Not supported	Time-spent awareness videos Auto-silenced notifs after 9pm Night insights
Frequent use Habitual and repeated checking of: app, notifications, direct, quick switching between surfaces	Understand work in progress	Medium	Not supported	App-opens insights
Long periods of use Spend more time in the app than intended, lose track of time, low awareness of time spent and long sessions	33% of teens WAU Have at least one 20min+ session per week	High	Daily usage limits Take a break (upsell and tool) Scheduled breaks (Parents only)	Take a break (tool only, no upsell)
Passive use Sessions with low/no engagement, long scrolling	9% of teens WAU Scrolls with 35+ impressions on the same topic	Medium	Alternative topic nudge	Usage-awareness videos

Considerations

- Severity: Based on an external literature review, is there causal empirical evidence that this behavior is associated with a negative outcome (e.g., depression)?
- Product coverage + parity: Based on product audits (1, 2), are there products that exist today that aim to address the sub-area of PU and is there parity across IG<>FB?
- Competitors: Based on competitor audits (1, 2), is IG at par with peer companies?
- Likelihood to impact external narrative: Based on the last three months of comms reports, how often is the sub-area mentioned in the external narrative about Meta and problematic use?

Sizing teens late-night use

Teens late night usage (12am-4am*) over one week

- 43.3% WAU teens have at least 1 late night session
- 4.6% of WAU teens have 1 or more late sessions every night
- Korea, France, US, and Brazil are the [FCI countries](#) with the highest % of teens that exhibit PU behaviors

Sizing of problematic [behavioral proxies](#) (p95) WAU

- 7.4% WAU teens exhibit at least 1 late night behavior (12am - 4am) associated with problematic use. See proxies below - daily average over one week
 - 4.1% WAU teens spend 18 min+ on IG
 - 4.6% WAU teens have 5 sessions
 - 4.3% WAU teens switch between surfaces 18+ times in a session

[12am - 4am](#) used for sizing only*

Late Night PU metrics identified as [behavioral proxies](#) (thresholds derived from p95)

This is a large proportion of teens, however reducing late night time spent for teens is seen as non-controversial net positive, therefore we should look at different thresholds to understand the overall sizing of teens with any kind of time spent late at night.

- 2 should we look at a longer window given that teens need 9+ hours of sleep per night?
Emily Dalton Smith, 8/18/2022
- 3 @eds@fb.com We started with a conservative window purely to get a read on sizing so the #s here are merely a starting point. For the actual in product default hours for teens, we are planning 10pm - 7 am based on research done by the Youth Platform team.
Gargi Apte, 8/18/2022

Gaps & Opportunities

Based on teens and young adults
[research](#) across US & IN

Teens feel pressure to be available at all times

- Teens feel they are expected to respond to messages [quickly](#) and are concerned about offending friends, hurting relationships, and/or missing out on opportunities to connect if they do not

Social norms are powerful levers

- Teens want to be able to close the app without feeling guilty; auto-replies and statuses enable them to set boundaries with friends and encourage others to do the same

Teens use IG to wind down at night

- Teens are looking for ways to minimize distractions as part of their wind down routine while using Instagram at night

OS and IG existing tools are not sufficient

- IG supervision and parental controls are blocking experiences that don't empower teens to build habits over time
- OS tools don't help foster norms with the community on IG

Guiding Principles

Principles

1. Empower through controls

We build solutions that create contextual awareness for teens and give them tools to take action.

1. Ensure intentional use

Preventing late night use altogether isn't a realistic or viable goal. Instead, we want to increase intentionality and feelings of control for teens.

1. Foster healthy norms

Enable people to set norms around usage habits and influence their communities.

1. Support strong external narrative

Prioritize visible products that serve as the strongest proof-points externally for press, regulators and guardians.

Add'l internal/cross-org consideration

1. Empower teens vs escalate to parents

Encourage teens to form healthy habits and inform Parental Controls so guardians can protect the most vulnerable cohorts.

Features consideration framework

More features explored [here](#)

		Control	Intentional Use	Norm Setting	External Narrative
1	Notification muting and app counter suppression at night	●	●	●	●
2	Contextual awareness (late use awareness nudges, targeted reels, etc)	●	●	●	●
3	Activity indicator (away message, status, etc)	●	●	●	●
4*	Automatic app cues (dark mode, audio off, screen dimming, etc)	●	●	●	●
5	Insights-driven awareness (dashboards, app usage insights, etc)	●	●	●	●

*4 Includes features that have strong potential to address the problem (dark mode, audio off, etc) but it was not prioritized for the MVP because of on-going Panavision dependencies.

Quiet Mode

Bundles features that can help teens minimize distraction off-app & have a less stimulating in-app experience at night

Why Quiet Mode to address PU?

Notifs are a key driver of late-night app opens/use for teen WAU with PU behaviors (7.5%):

- 66% of these teens start a session from a notification, or an app badge, between 12am-4am
- 30% of these teens start a session from a notification that was sent and clicked between 12am and 4am

Presence indicators drive messaging activity

- Active indicator ([green dot](#)): +2.0% and +1.6% message sends for iOS and Android respectively
- "[Active Now tray](#)": +1.01% reciprocal conversations among teens, +0.18% longer sessions overall

Based on the above, we identified a two-pronged approach

- [Off-app] Reduce app opens by muting notifications during night time and experiences that might interrupt sleep
- [In-app] Reduce late night use via in-app cues & norm setting interventions

Users who start a session from notifications/app badge have a higher daily time spent in direct. (10 min, 55% more than home)

43% (of the 18%) of the sessions between 12 am and 4 am are caused by Direct notifs

See surface analysis [here](#)

Users who start a session organically have a higher daily average time spent in reels (8min, 2X more than home)

- 2 of what? Sorry, it's hard for me to rightsize this. If 7.5% is out of the 100% that have problematic use, it doesn't seem like notifis are most impactful...
Stephanie Moyerman, 8/17/2022
- 4 To clarify, 7.5% of teens exhibit proxy PU behaviors. 66% of these open the app at night due to a notif.
Gargi Apte, 8/17/2022

What is Quiet Mode

A control enabled bundle of existing and new features that can help people have a less stimulating experience and wind down at night

Designed to specifically address late use awareness, control, norm settings and FOMO reduction

Self experience

-  No push notification or app badge/counter
-  All tabs in dark mode
-  Status indicator in Home
-  Morning digest

Viewer experience

-  No active indicator (aka green dot)
-  Status indicator in Profile and Direct
-  Direct auto-reply in 1:1 threads

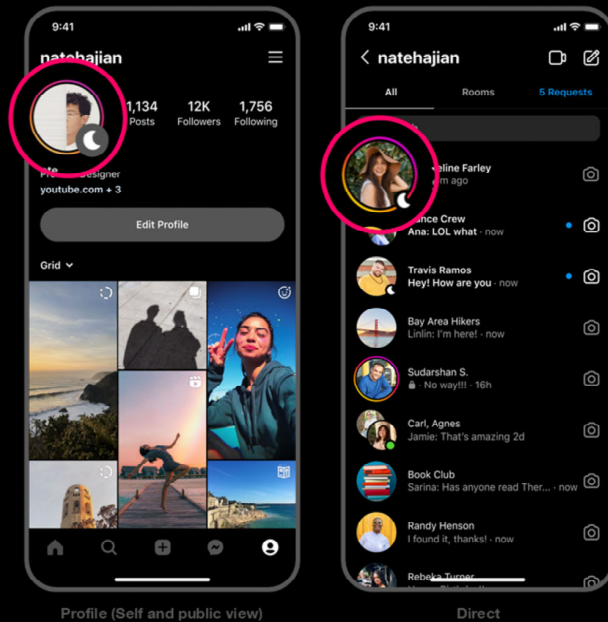
-  Daily automatic start and end time

- 3 I love this in terms of "Fostering Healthy Norms". It places this as a subtle but overt norming reminder.
Stephanie Moyerman, 8/4/2022

QUIET MODE DEEP DIVE

Status indicators

Hide all active indicators, AKA green dot, throughout the app (inbox, stories, chat thread, etc), and replace with visual cues to set norms and engagement expectations around late night use



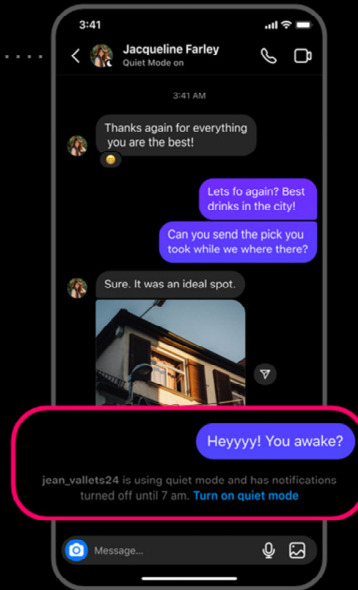
QUIET MODE DEEP DIVE

Direct auto-reply

Set late night norms by letting the sender know the recipient is in Quiet Mode, and won't get notified about the message sent

Leverage this as a product upsell moment for the sender as well, and allow them to turn on the feature contextually

In-thread indicator



. . . . Auto-reply and Quiet Mode upsell

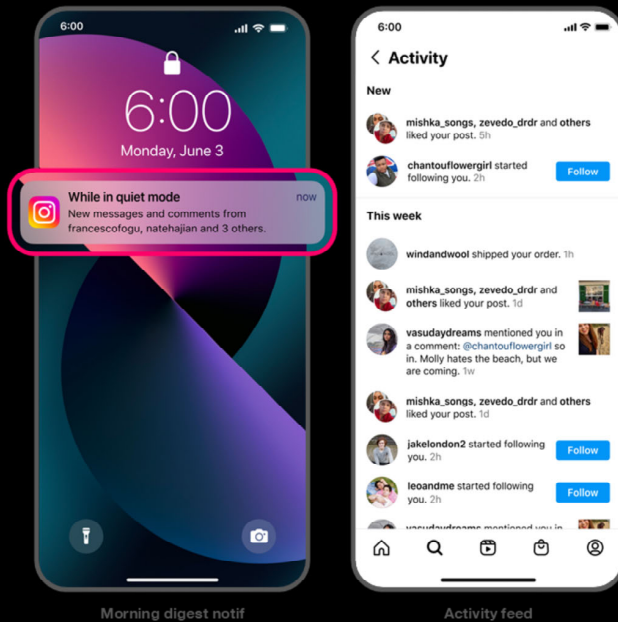
Direct thread

QUIET MODE DEEP DIVE

No push notifications, suppressed app counter, and morning digest

While in Quiet Mode, users won't receive any push notifications from IG. The notif counter on the IG App icon will also be suppressed

To reduce FOMO, teens can catch up on activity they missed via a digest notif sent in the morning, when Quiet Mode turns off



IG Amber Alerts are in feed QPs only. Users are not push notified about, even if quiet mode is off.

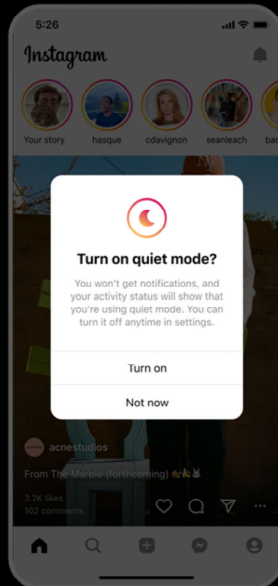
- 5 @aatout@fb.com can you say more on why it might be overwhelming? This would be a single digest that would land on activity feed, so similar to what you might do when you open the app. Resume normal notifs might lead to missing those from the night or getting too many in the morning ..
Gargi Apte, 8/4/2022
- 1 Love the notion of morning digest
Susan Dybbs, 8/4/2022
- 1 I can see this becoming overwhelming as well. Would there be an option to switch it off and just resume normal notifications in the morning?
Amer Atout, 8/6/2022
- 2 My thinking was that it would trigger FOMO for the following night (I missed all these notifications last night). I was alluding to skip the night notifications and go back to normal for any new notifications. However, I see your point on consolidating these in one digest so we don't miss them.
Amer Atout, 8/6/2022

QUIET MODE DEEP DIVE

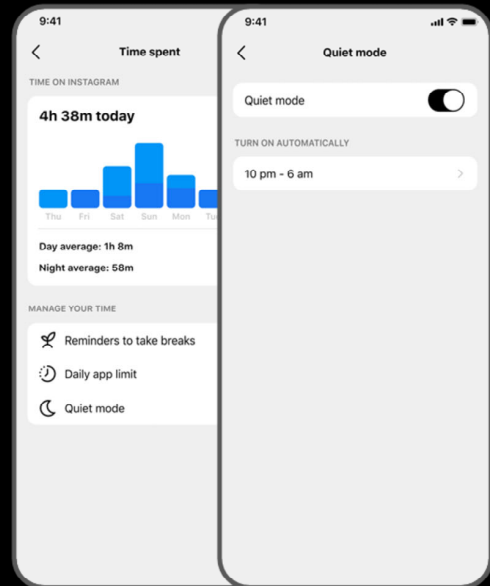
Upsell, entry-point & customization

Quiet Mode will be contextually upsold to targeted teens that exhibit potentially PU behavior during late night hours

In Settings, anyone will be able to turn the feature on/off and customize start and end time



Targeted late-night upsell (illustrative)



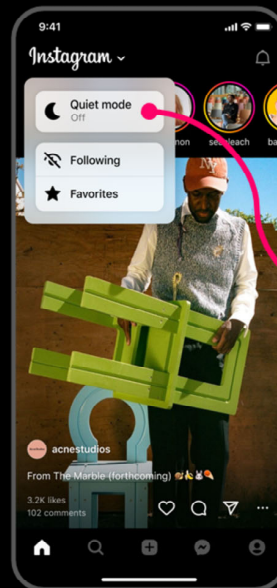
Permanent entrypoint + management

- 1 Curious if we have thought about setting different times depending on day of week (ie 10pm-6am M-F, 10pm-7am S-S, etc)
Fiona Fung, 8/4/2022
- 7 @karleneh@fb.com
Gargi Apte, 8/4/2022
- 3 is quiet mode only 12-4 or can teens set it for any length of time?
Emily Dalton Smith, 8/18/2022
- 6 We suggest a default of 10pm - 7 am for Quiet Mode and teens can adjust it to a time of their choosing to customize as well. We are planning to limit the delta to 8-9 hours max to avoid unintended ecosystem impact by muting for longer than that.
Gargi Apte, 8/18/2022

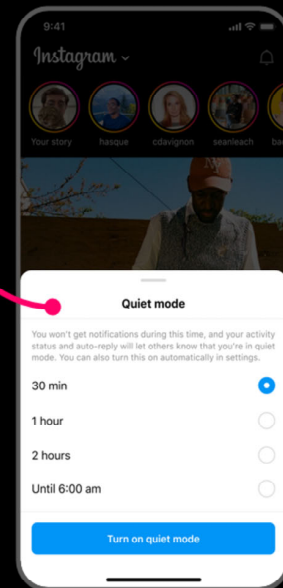
QUIET MODE - FUTURE**A scalable system for all quiet needs**

Ability to easily turn on/off Quiet Mode outside the pre-scheduled window for one off/immediate needs, and customize it with unique features like:

- Dimmed screen brightness
- Audio off
- No haptic/sound feedback



Contextual Quiet Mode control



One-off quiet mode session

Slide 21

- 3 love this idea
Amer Atout, 8/4/2022
- 2 Design feedback: the feature control doesn't belong in drop down that is a filter.
Susan Dybbs, 8/4/2022
- 4 v cool
Emily Dalton Smith, 8/17/2022

Discussion

DISCUSSION TOPIC #1

Alignment Check-in

Feedback needed

1. Are leads aligned with our focus on late night use?
2. Are leads aligned on "Quiet Mode" as the main H2 bet?

Considerations summary

1. Communities P0 goal: "Reduce behaviors associated with problematic use - test 3 PU interventions and launch at least one with an external drumbeat narrative"
2. We recommend Quiet Mode as a hero product for late night use intervention and propose phased test + launch with comms moment
3. Per Comms, Quiet mode addresses external concerns – often re: "addiction" to our products – from parents, policymakers and teens, especially if we default teens into them, or create strong upsells

- 8 We wanted to flag this as well - given Quiet Mode is large in scope, we are planning two tests for it -
1. Muting notifs, suppressing active indicator, morning digits
 2. IGD auto reply and Quiet Mode indicators.
- Are leads aligned that this could be considered as two separate tests? We are finalizing a third idea in the next few weeks.
- cC: @ffogu@fb.com
Gargi Apte, 8/4/2022
- 4 Does the "less stimulating experience" (auto-mute, screen brightness) fit into either 1 or 2 above?
Stephanie Moyerman, 8/4/2022
- 9 KATHryn: attitudinal questions so we have both behavior signal and motivational signal
Gargi Apte, 8/4/2022
- 10 Can indicators test be separate?
1. notif + digest
 2. Indicator test only
 3. IGD test (start plannin for this now)
- Gargi Apte, 8/4/2022
- 1 The team outlined a goal of 3 tests. Should this be considered as 1 of 3 tests? What are other tests that the team planning on running?
Nino Sitchinava, 8/4/2022
- 11 Stanley: Daisy had a lot of variants but that created thrash and work later to unwind. Risk if we have too many variants - especially opt in. Suggestion to test the full mode first, see if there are ecosystem regressions.
Gargi Apte, 8/4/2022
- 1 What is the settings hierarchy when considering Take-a-Break and Limits already exists? Can this be packaged and/or positioned as additive to existing settings/flow, vs creating more paths in our settings menus, or is the Time Dashboard the common entry point for PU/WB settings? Trying to think of a drumbeat destination for ALL the great work.
Porfirio Landeros, 8/18/2022
- 12 @planderos@fb.com Yes, Time Spent is the primary surface for all time related settings (currently also WB settings).
Gargi Apte, 8/18/2022

DISCUSSION TOPIC #2

Overlap with OS

Feedback needed

1. Are leads aligned that Quiet Mode is sufficiently differentiated from OS "focus features", and that the two can coexist? Detailed table [here](#)

Considerations summary

1. iOS and Android offer a suite of focus features with the ability to configure notifications, contacts, and home screen
2. IG's 'Quiet Mode' offers unique in-app experiences that help individuals, and the overall IG community, foster healthy night norms
 - a. Key features not offered by the OS: publicly visible cues in-app like "Night Mode On" indicators and Direct auto-reply. Morning digest. Potentially sound off/dimmed screen in the future.
 - b. Main overlapping feature with OS: Muted push notifs. Key feature required for us to control the end-to-end experience, especially for users that only adopt IG Quiet Mode and not OS ones.
3. Long term, we see opportunities to integrate with Apple's wellness API

The team has considered how this impacts our product portfolio and how to invest further in PU. We landed on some principles to help us proceed -

1. Our preference is to build products that solve a real user need and are distinct from anything OS/competitors offer
2. We may build similar products where there is a strong user need. This helps us address IG-specific problems, have more control over the solution and avoid relying on teens adopting OS features
3. We use OS features to our advantage and build on top of them to offer robust solutions (e.g. [Focus API](#))

- 1 There's differentiation from a feature-set/capability standpoint, but what is less clear to me is overlap of the expected usage between OS level features vs. app specific quiet mode. do we have any forecasts on this?
- I assume we dont have OS level data on usage of native features like DND/sleep mode/ etc, right?
Nima Shafiee, 8/4/2022
- 2 But in general this proposed quiet mode seems like a much richer set of experiences/interventions than existing OS level controls/features , so there's definitely differentiation
Nima Shafiee, 8/4/2022
- 13 @jkjk@fb.com can share the current state of the OS API, my understanding is its still very new.
- But we are planning to integrate with it post MVP as a way to signal that the user might want to be in Quiet Mode.
Gargi Apte, 8/18/2022
- 2 Is there an OS API for us to trigger some of these in-app features (e.g. status, auto-reply) when iOS/Android users set there phones to DND/night/focus modes? Might be an interesting approach vs going completely native in V1.
Porfirio Landeros, 9/2/2022
- 1 Yes there is an API on iOS where we can trigger these in response to OS focus mode, although it requires the user to first enable the trigger. You can see an overview of what's possible here: <https://fb.workplace.com/notes/733084574568400>
Jonathan Kim, 9/2/2022

DISCUSSION TOPIC #3

Teen vs parent controls

Feedback needed

1. Family Center offers Blocking Hours/Scheduled Breaks to guardians only (details below). Are there any concerns with Quiet Mode and Blocking Hours coexisting?

Considerations summary

1. A [scheduled break](#) is a blocking experience that prevents the teen from accessing IG altogether. Quiet Mode is not designed to be a blocking, instead it empowers the teen to mindfully use the app at night, but with fewer distractions/stimulations as part of their wind down routine.
2. Blocking Hours is a private experience only between the teen and parent. Quiet Mode is a public experience, designed to help the community set norms around night usage and help develop healthy habits.
 - a. If blocking hours overlap with quiet mode hours, the teen account will have all the QM features (no push, no activity indicator, QM indicators on direct and profile) but they won't be able to access IG, until blocking hours expire.
 - b. In the future, we can explore giving parents [visibility into this control](#), but continue letting the teen manage it.

TBD:

1. When teen is enabling QM after Scheduled Breaks is set up: Communicating to the teen when their parent has already set up blocking hours and clarifying they will not be able to use the app during overlapping QM.
2. Let parents know that QM has been enabled by the teen.
3. Ensure we are communicating what features are part of QM clearly to the teen.

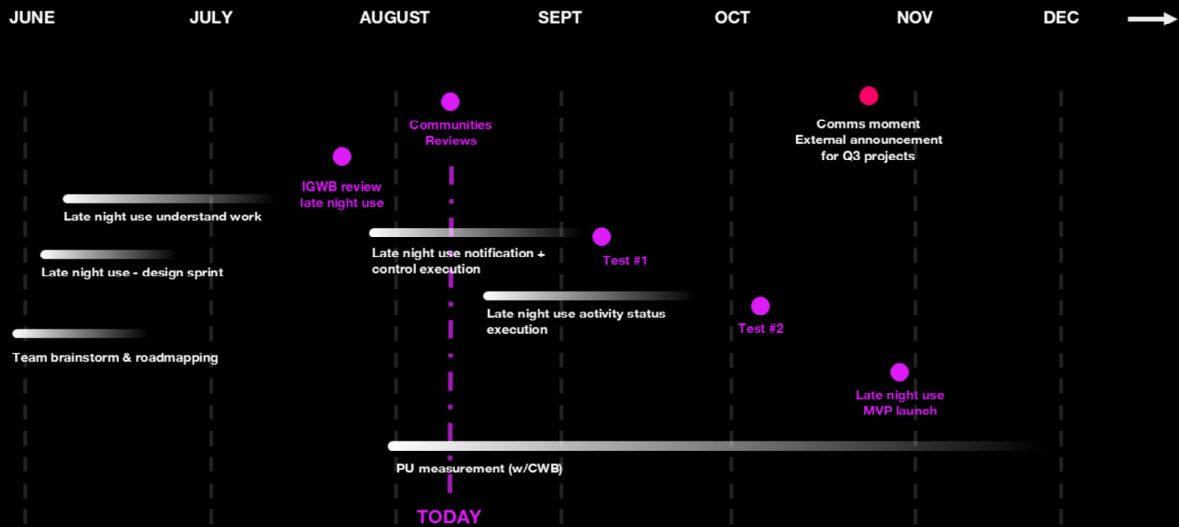
- 5 love this
Emily Dalton Smith, 8/17/2022
- 6 it would be good to allow teens to choose what is communicated when both blocking and quiet mode are enabled. blocking risks appearing as punitive, with high potential for embarrassment -- can both be enabled and the moon show?
Emily Dalton Smith, 8/17/2022
- 5 I don't see an issue, but could see teens getting confused about the difference. Do we have any messaging in mind to teens using QM when blocking hours are already in place or get implemented?
Stephanie Moyerman, 8/18/2022
- 14 @eds@fb.com When both modes are enabled, the teen will be blocked from using the app due to "Blocking Hours" but their friends will see Quiet Mode features like the moon sign and IGD auto reply as a way to set norms.

@smoyerman@fb.com we are working through the messaging now for teens
Gargi Apte, 8/18/2022

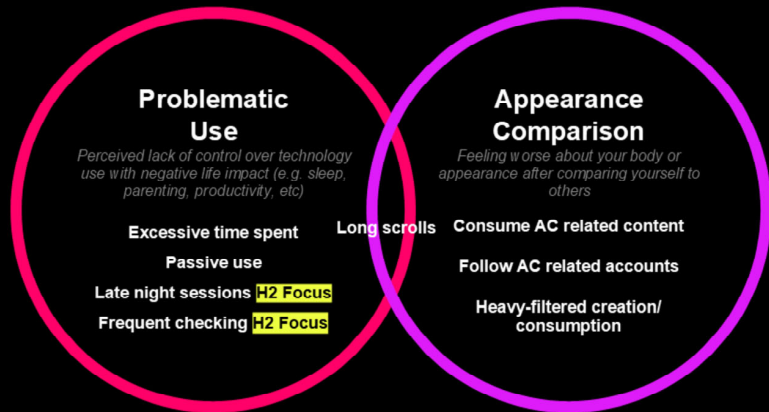
Appendix

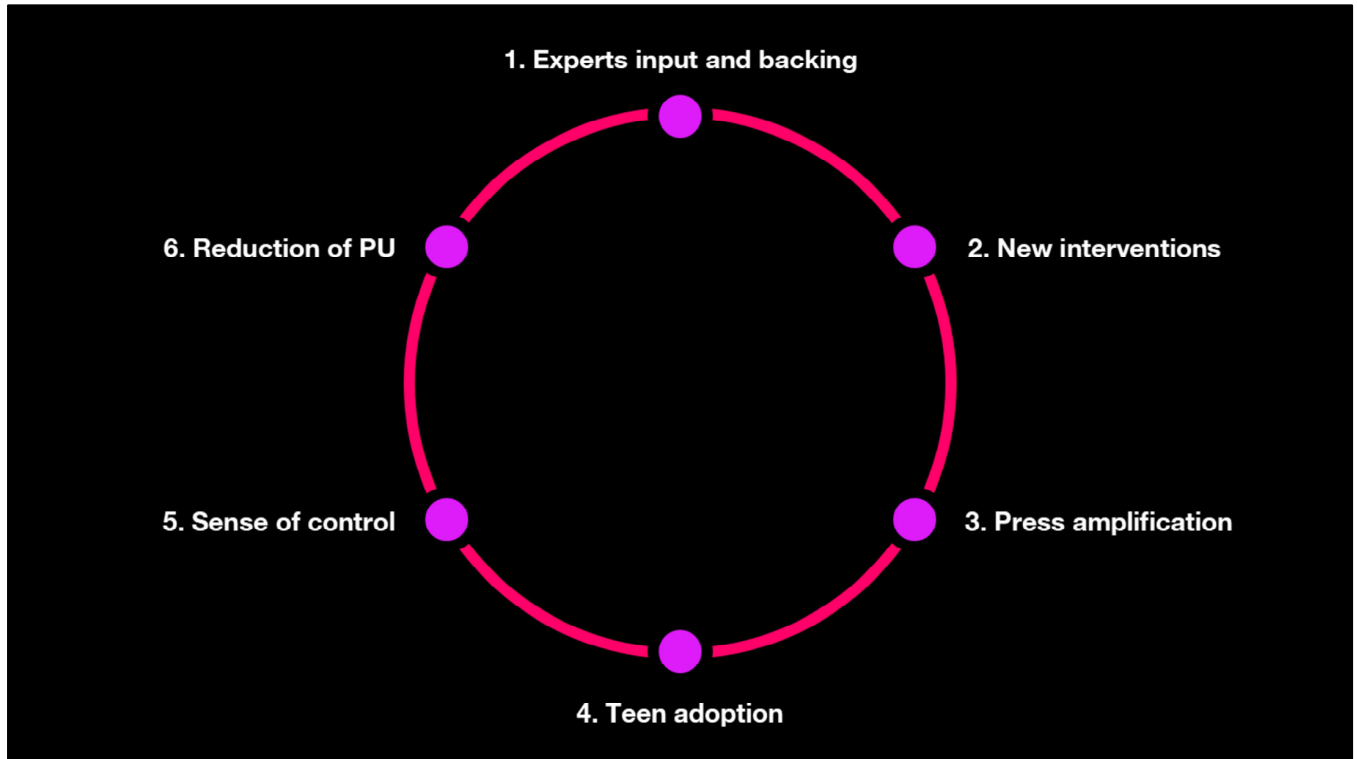
Quiet Mode details, additional data, more Late Night concepts

H2 EXECUTION TIMELINE



Overall Landscape





Competitive Considerations

Feature	IG (Teens)	TikTok (Teens)	iOS
Daily usage limits	Yes	Yes	Yes
Take a break reminder	Upsell Tool	Tool	No
Late Night interventions	No	Awareness videos Auto-silenced notifs Night use insights	Sleep mode (opt-in)
Frequent use interventions	No	Insights	Insights Tools
Time spent insights	Total usage	Day usage Night usage	Advanced insights
Brightness/colors	Dark Mode	Dark Mode	Night shift

Rationale for existing controls targeting

- **Long Sessions:** Take a Break upsell trigger was set at 20 min, as opposed to 10 min, because it was a more conservative option that showed very similar adoption/dismissal and overall reach wasn't that much lower. [Source](#)
- **Passive Use:** For Alternative Topic Nudge we picked a chain length of 35+ because it is the 95th percentile of Explore chain lengths. [Source](#)

OS offerings X IG integration

Feature	IG's Quiet Mode	iOS (Focus, DnD, Sleep)	Android (Focus, DnD, Bedtime)
Push notifs muted	Yes	Yes	Yes
App badge counter muted	Yes	Yes (opt-in only)	Yes (opt-in only)
Catch up digest	Yes (IG specific)	Yes (scheduled summary)	Yes
Dark mode	Tentative	Yes	Yes
In app active indicator suppressed	Yes	No	No
In app status/night icons	Yes	No	No
Auto reply in IGD	Yes	No	No
Daily schedule	Tentative	Yes (also supports other triggers like location)	Yes
Dim screen	Post MVP	Yes	Yes (can also set grayscale)
Audio off	Post MVP	No	No

Have in app toggle

Integrate with OS - instead of us switching it on on IG, but enable based on OS status

Framework and solutions explored

	Awareness	Control	Norm Setting	Behavioral changes	Support	External perception
	ie user is aware of what time it is and how much time they've spent on IG	ie user has access to tools that help them manage their time	ie user sets boundaries for themselves and others on how/when to engage	ie user over time shows less PU behaviors	ie user has access to guidance and resources for addressing PU	ie solution can change general perception of IG and drive teen adoption
Quiet mode	●	●	●	●	●	●
Usage awareness bumpers	●	●	●	●	●	●
Reels + night insights combo	●	●	●	●	●	●
Notif muting at night	●	●	●	●	●	●
Screen dimming at night	●	●	●	●	●	●
Audio off at night	●	●	●	●	●	●
Curated Guides	●	●	●	●	●	●
Weekly time spent digest	●	●	●	●	●	●

User feedback on Quiet Mode

Quiet Mode performed well in early concept testing with US teens and young adults.*

Quiet Mode was the most appealing concept (of 4 tested) and was appreciated for its versatility and ability to customize one's IG experience

Participants saw value in using QM for nighttime and daytime use

Participants felt that QM MVP features would help them:

- Reduce distractions from IG when they are trying to sleep, wind down before bed, or otherwise focus on something else
- Set expectations about their availability to engage with friends
- Reduce FOMO associated with taking a break from the app

*N=10 US daily and weekly IG users who report difficulty managing late night use; Report forthcoming

Why is 12AM-4AM late night?

- [Previous research](#) which linked problematic Facebook use to late-night use, has been associated with both later bedtimes and rising times and with insomnia. Because of the association between PU and lack of sleep, the fraction of sessions that occur late at night (12AM - 4AM) was used for this paper.
- 12AM-4AM is the approximate time period associated with higher negative affect in [Golder & Macy 2011](#).
- On TikTok all teens do not receive notifications at night by default:
 - 13-15 yrs old - notif muted starting at 9PM
 - 16-17 yrs old - notif muted starting at 10PM
- Apple defaults Focus Mode/Do Not Disturb to 10PM - 7AM daily
- In Youth Platform [research](#), most parents felt 10pm-7am were appropriate hours for a 'sleep mode' (i.e., blocking hours)

PU Behavioral Proxies

We are currently collaborating with CWB on a “ground truth” measurement survey of problematic use on Instagram, and expect to have a PU prevalence estimate by end of H2 (see [understand plan](#)).

In the meantime, we can leverage behavioral proxies identified in a Facebook study to estimate PU on Instagram. That study found that 12.5% of FB app users worldwide experience PU based on user self-report ([ref](#)) and identified the following metrics as PU proxies:

1. No-engagement late night sessions
2. Late night high volume product switching
3. No-engagement repeat sessions (Less than 10 min from end of prior session)
4. High volume of short sessions (<15 sec)
5. High Frequency notifications checking

Using these signals, plus late night long sessions (since displacing sleep is one of the negative life impacts of PU), we estimate that 18.3% of IG teen users exhibit behaviors associated with PU.

- 2 Are all of these behaviors during late night hours? This isn't clear for 3, 4, and 5.
Nino Sitchinava, 8/4/2022
- 1 No, 3-5 are not related to late night use. Also pointing out that these were derived from FB data and we have recently shown that on IG these behaviors are largely driven by IG Direct usage. So we shouldn't necessarily take these at face value.
George Volichenko, 8/4/2022

Late night use x teens (13-17)

Late Night Problematic Behavioral Proxies

1. Late night sessions

Stated teen/non-teen	Avg total sessions late night	P50 total sessions late night	P75 total sessions late night	P80 total sessions late night	P95 total sessions late night
non-teen	0.9	0.0	0.7	1.0	4.0
teen	1.1	0.0	0.8	1.1	5.3

1. Late night high volume product switching

Stated teen/non-teen	Avg product switches late night	P50 product switches late night	P75 product switches late night	P80 product switches late night	P95 product switches late night
non-teen	3.8	0.0	3.1	4.4	17.6
teen	3.7	0.0	2.8	4.0	18.5

1. Late night long sessions (since displacing sleep is one of the negative life impacts of PU)

Stated teen/non-teen	Avg Late night time spent (min)	P50 Late night time spent (min)	P75 Late night time spent (min)	P80 Late night time spent (min)	P95 Late night time spent (min)
non-teen	3	0	3	5	17
teen	3	0	3	4	18

VO: This is a large proportion of teens, however reducing late night time spent for teens is seen as non-controversial net positive, therefore we should look at different thresholds to understand the overall sizing of teens with any kind of time spent late at night.

Late night use x teens (13-17)

Late Night Problematic Behavioral Proxies by FCI Countries:

With p95 set by the global average this is the % of WAU by Country(FCI):

FCI Country	% of total WAU teens with at least 1 PU behavior	# WAU Teens with at least 1 PU behavior
US	11.74%	1,522,833
Australia	6.27%	73,118
Brazil	8.10%	861,713
France	12.32%	256,601
Germany	5.14%	107,208
India	3.05%	1,436,068
Japan	7.01%	427,045
Korea	13.49%	280,498
UK	4.82%	106,842

This could indicate that there are key differences in markets in terms of either norms or problematic use, which remains to be seen by further research.

If we were to set thresholds based on the market it would like this:

FCI Country	Late Night Total Sessions (Teens) p95	Late Night Minutes spent (Teens) p95	Late Night Product Switches (Teens) p95	% of Total WAU teens with at least 1 PU behavior
Global	5	18	18	7.4%
US	10	19	13	7.1%
Australia	5	12	13	7.8%
Brazil	5	22	24	7.6%
France	9	19	13	8.0%
Germany	5	10	12	7.4%
India	2	11	34	6.6%
Japan	6	10	13	7.7%
Korea	10	20	15	7.3%
UK	5	9	12	7.5%

- 43.3% (77.9M) of WAU teens have at least 1 late night session* L7
- WAU teens L7 with at least 1 session:
 - >10 min: 13.6% (24.5 M)
 - >30 min: 3.24% (5.8M)
 - >1 hr: 0.59% (1M)
- 67M Sessions (0.4% of total teen sessions) >10 min late night L7 for teens
- 4.6% of WAU teens have 1 or more sessions every night L7
- 33% of teen sessions between 12 am and 4 am start due to a notif (26% receive and click after midnight)

Sizing/Severity Late Night Use

For Users with Late Night PU Behaviors:

- An average of 40% of teen's sessions, start from a notification or an app badge.
 - 18% of dau start a session from a notification that was sent and clicked within 12 am and 4 am
 - 43% are direct text notifications
- Users who start a session organically have a higher daily average time spent in reels, compared to users who start a session from notifications/app badge whose daily average time spent is higher on direct.

Session start attribution is organic				Session start attribution is notification or app badge			
Surface	Daily avg minutes	Daily mean minutes	Daily p95 minutes	Surface	Daily avg minutes	Daily mean minutes	Daily p95 minutes
reels	8.0	2.0	36.0	home	6.4	3.1	23.8
home	3.9	1.4	16.5	direct	9.9	2.3	47.3
profile	3.5	0.8	15.9	reels	6.8	1.9	29.9
explore	5.7	0.7	29.1	profile	3.7	1.3	15.6
saved	3.3	0.7	15.1	Stories creation	2.7	0.9	11.9
direct	2.4	0.4	10.7	saved	2.5	0.6	11.6

Ecosystem Impact Estimates

Feature	Metric	Estimated Regression	Material Threshold	Assumptions
Awareness bumps	IG Time Spent	-0.25%	0.20%	Bump trigger (total time spent over a single night): 20 min Bump honor rate: 1% % of overall time spent that is late night: 8% Bump is shown to everyone who meets the trigger criteria
Night mode	IG Foreground Sessions, IG Time Spent	-0.24%	0.20%	Feature enable rate: 0.40% % of notifs still clicked the next day: 40% Night mode only blocks push notifications, activity feed still accessible

Other relevant metrics that could be affected:

- Feed impressions
- IG Revenue
- Stories Impressions
- Reels intentional plays
- Foreground sessions

[Full analysis](#)

GTM Strategy (WIP)

Effectively land our message externally with teens, parents, and policy stakeholders.

- Messaging/GTM research to determine optimal positioning for Quiet Mode and what resonates with teens, specifically
 - *[To be confirmed with research]* We'll look to emphasize how Quiet Mode will help Creators and teens set "night-usage norms" and self-regulating behaviors to have more meaningful, intentional experiences on Instagram
- Naming research (in collaboration with CD)
- Leverage Creator community to help set norms, potentially preview during Creator Week (Oct)
- Marketing-in-Product activation (New! Story) to drive awareness
- Teen-first content approach, leverage editorial channels to amplify
- [TBD] Bundling with new updates from Family Center/IG Supervision team

Users who start a session from notifications/app badge have a higher daily time spent in direct. (10 min, 55% more than home)

43% (of the 18%) of the sessions between 12 am and 4 am are caused by Direct notifs

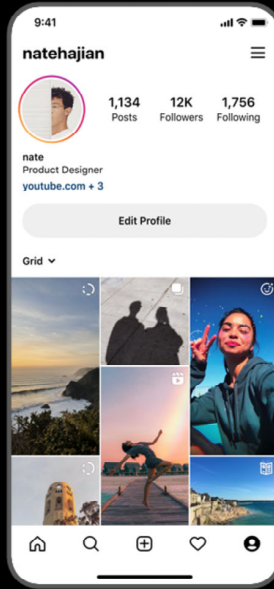
See surface analysis [here](#)

Users who start a session organically have a higher daily average time spent in reels (8min, 2X more than home)

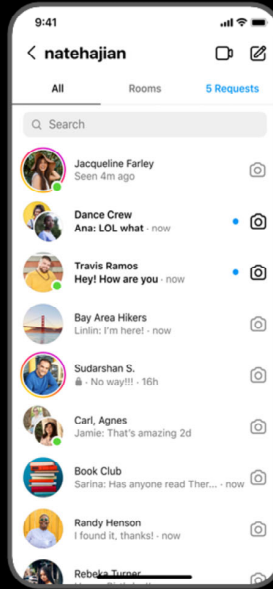
Status Quo



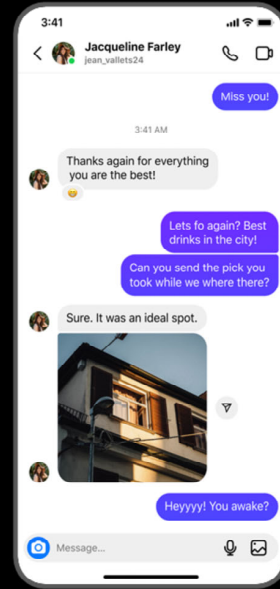
Home



Profile

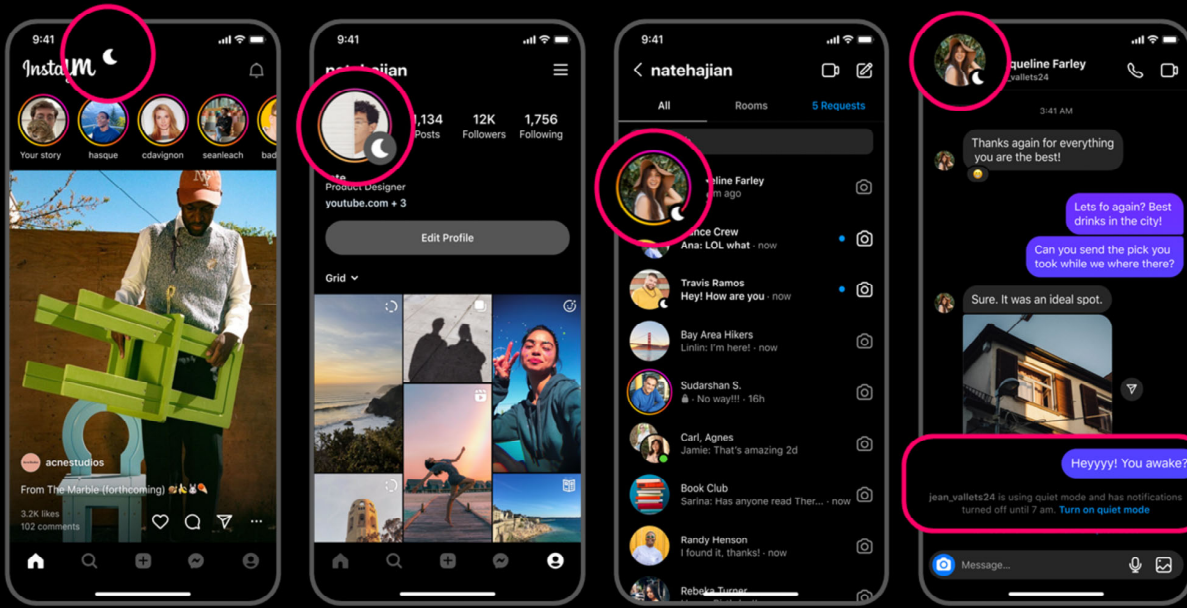


Inbox

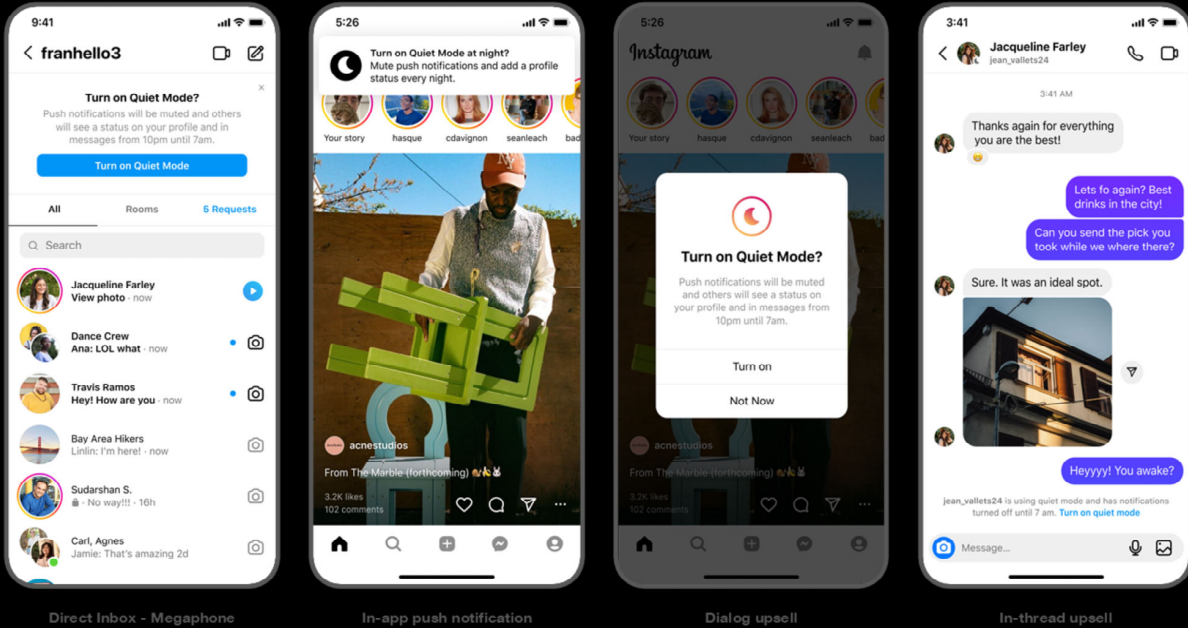


Direct auto-reply

Quiet Mode On



Upsell Options



Quiet Mode feature list (MVP test vs MVP launch)

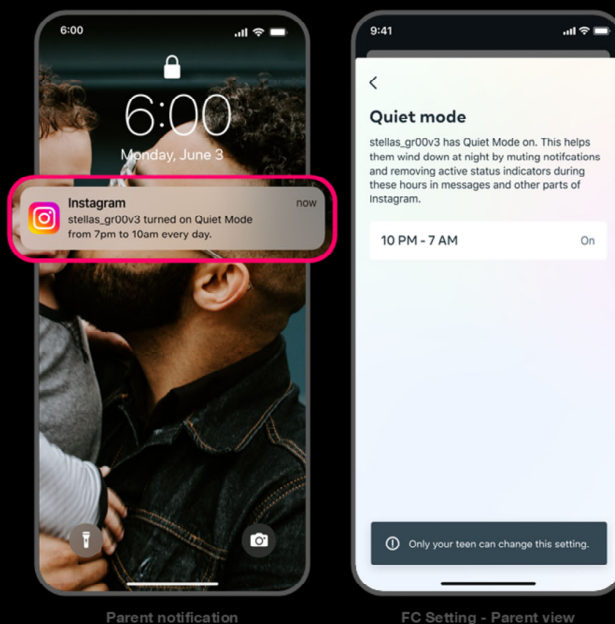
Sub-Feature	Exists Today	Required for MVP test 1	Required for Launch
Push notif muting + app icon badge suppression	Yes	Yes	Already built in MVP
Green dot suppression	Yes	Yes + app-wide	Already built in MVP
Direct in-thread auto reply	No	No	Yes
Quiet mode indicator (profile)	No	Stretch goal	Stretch goal
Quiet mode indicator (direct)	No	No	Yes
Activity digest push	No	Yes	Already built in MVP
IG-wide dark mode	Yes	Stretch goal	Stretch goal
Screen dimming	No	No	No
Sound off	No	No	No
Notify anyway in IGD	No	No	No
Quiet Mode customization	No	No	Yes + Auto start/end only
Auto turn on/off (bundle)	No	Yes	Already built in MVP
Auto turn on/off (uspell)	No	Yes	Already built in MVP
Ad-hoc turn on/off (bundle)	No	No	TBD

Empowering teens vs. expanding parental oversight

We aligned with Youth Platform that Quiet Mode will be available to all teens, including supervised ones, so they can build better habits and demonstrate responsibility to the guardian over managing their time.

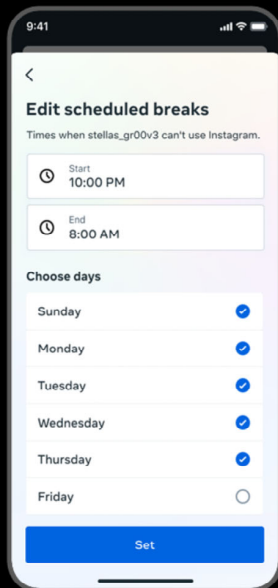
How Quiet Mode works for supervised teens with [Blocking hours](#) enabled:

1. If blocking hours overlap with quiet mode hours, the teen account will have all the QM features (no push, no activity indicator, QM indicators on direct and profile) but they won't be able to access IG, until blocking hours expire.
2. In the future, we can explore giving parents visibility into this Setting, but continue letting the teen manage it.
3. We will monitor how the feature will be used across supervised and unsupervised teens and plan to tweak based on learnings, if necessary

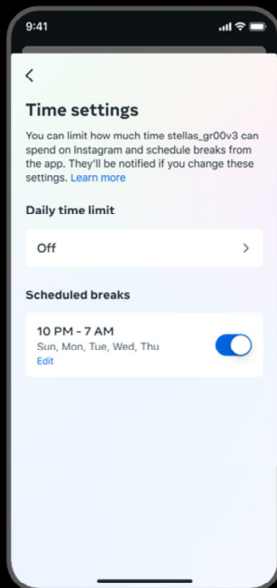


We believe there's an opportunity to build on the work that YP is doing by giving guardians visibility into teens' usage habits and enabling teens to show their parents when they want to take control of the time they spend.

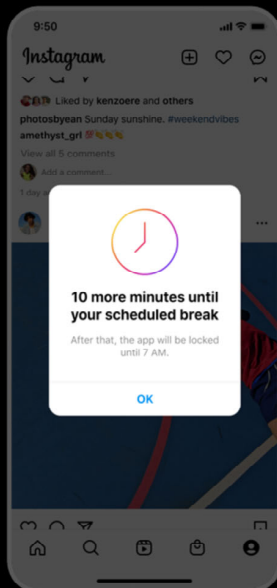
YP: Scheduled Breaks



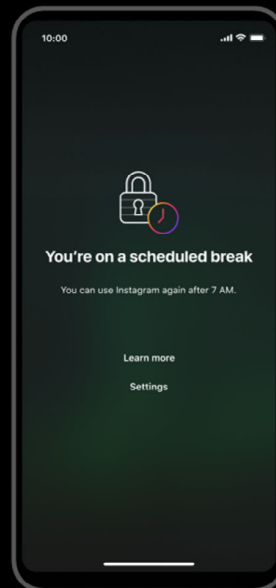
Parent view: Setup



Parent view: Settings



Teen view: Warning



Teen view: Break

Awareness Bumpers

Time-based interventions designed to help teens develop usage awareness, and let them decide how to use the app late at night.

AWARENESS BUMPERS

Surface agnostic

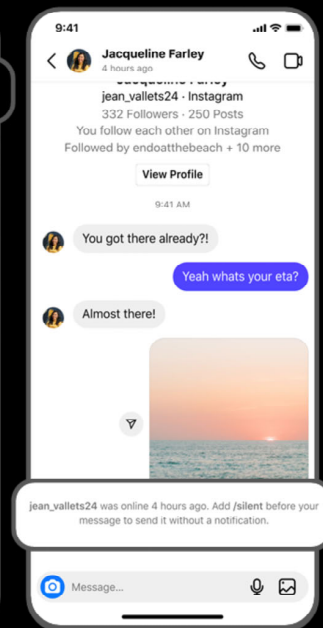
Lightweight nudge shown on any surface as a top toast. Triggered only late at night. Can have an action or be just informative

Surface specific

Targeted intervention for specific surfaces with detailed insights



In-app toast (surface agnostic)



Surface-specific nudge

AWARENESS BUMPERS - **FUTURE**

In-feed sleep-focused content

Netego with resources reminds users to start winding down

This includes experts-backed content developed in partnership with external services and creators

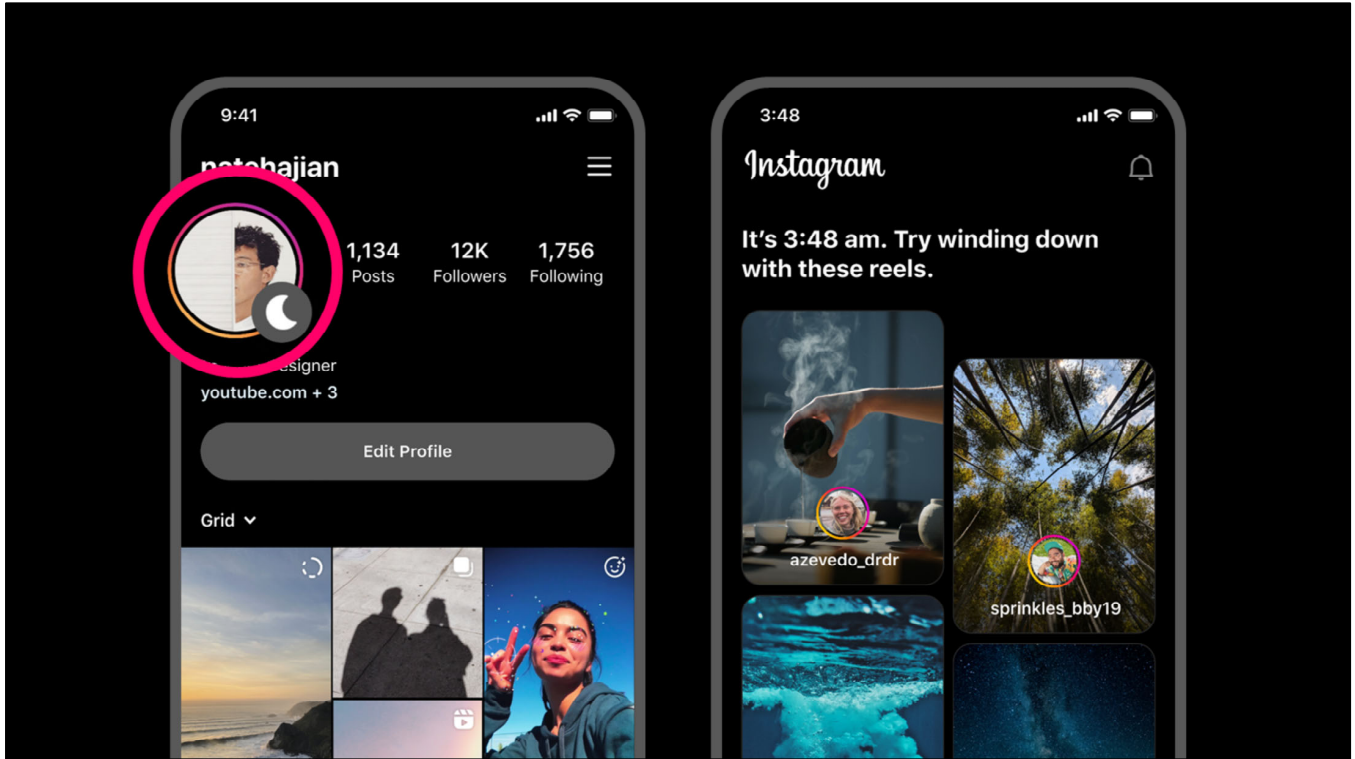
⚠️ *While we are very excited about this concept, we will have to wait for Panavision to stabilize before introducing new features in feed. We can potentially start content creation before eng implementation if needed*



In-feed Netego



Chained curated content



Dashboard + Night Insights

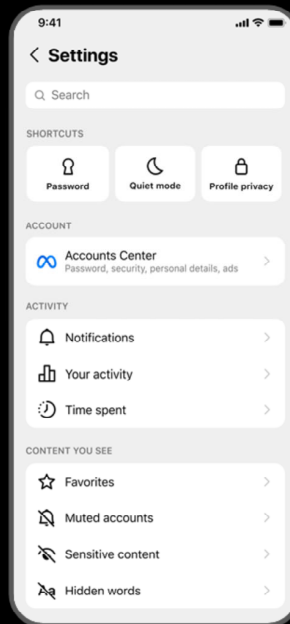
Expand Time Spent to include night stats

1. Night vs day usage

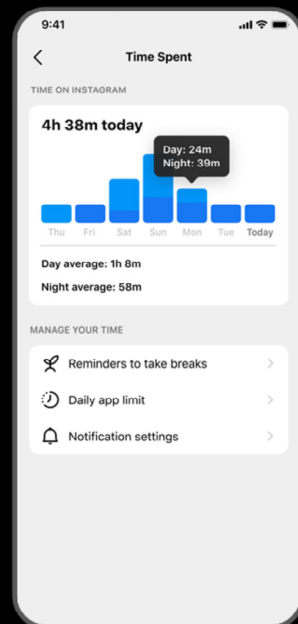
Create clear visual comparison between the two

2. Targeted products for night users

Upsell night-usage products for in-need cohorts



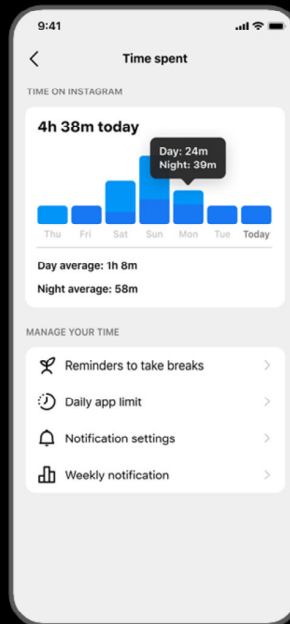
Targeted Night Mode upsell in Settings



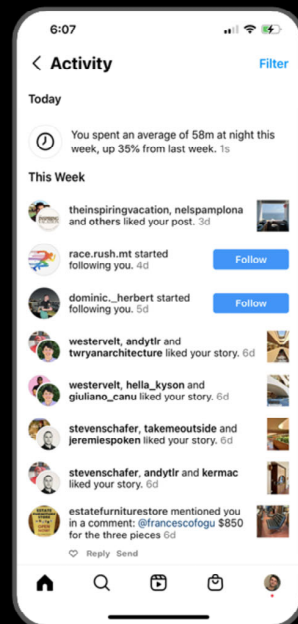
Dashboard with clear usage breakdown

Weekly summary with time spent usage

1. **Trigger point to access Time Spent**
Weekly reminder to help people be aware of their time spent
2. **Emphasize uncommon patterns**
Use language that calls out abnormal behaviors, especially at night



Time Spent tools



Weekly digest