Harold Kim
Product Designer

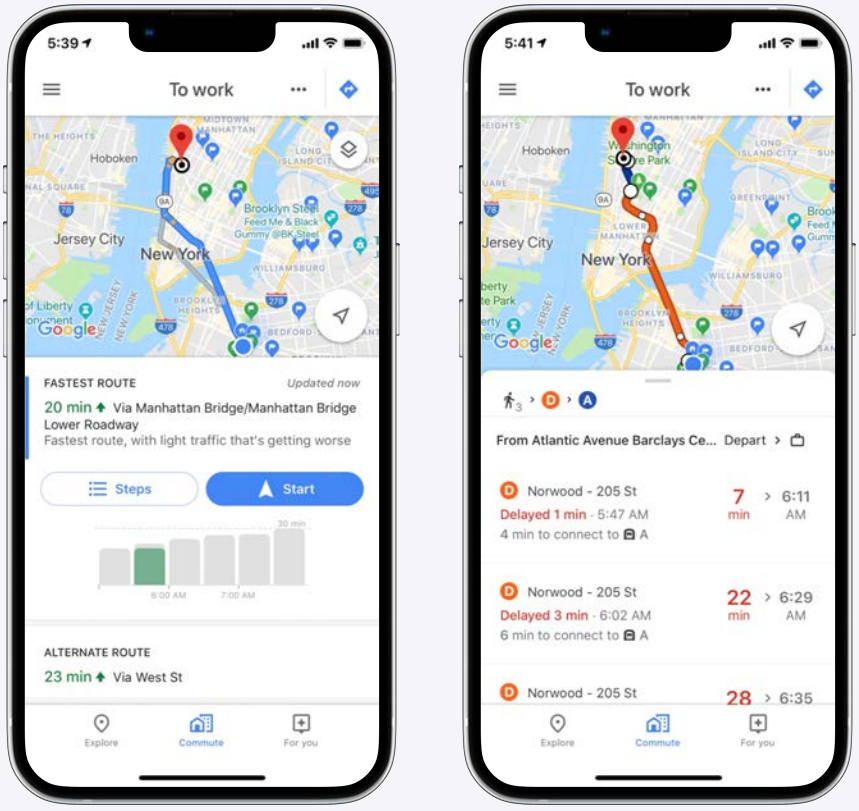
Google Maps

Year	2016 – 2018
Role	Senior Product Designer

Though many users use Google Maps for directions, few know that they can make reservations, book tickets, or order food through the app.

In order to increase the top of funnel and expose more users to local services, leadership made an organization-wide goal to **increase the number of users opening the app every day.**

I was part of the transportation team, and we decided to focus on commuting use cases. The plan was to send daily notifications to commuters with updates on traffic, delays, and alternate routes.



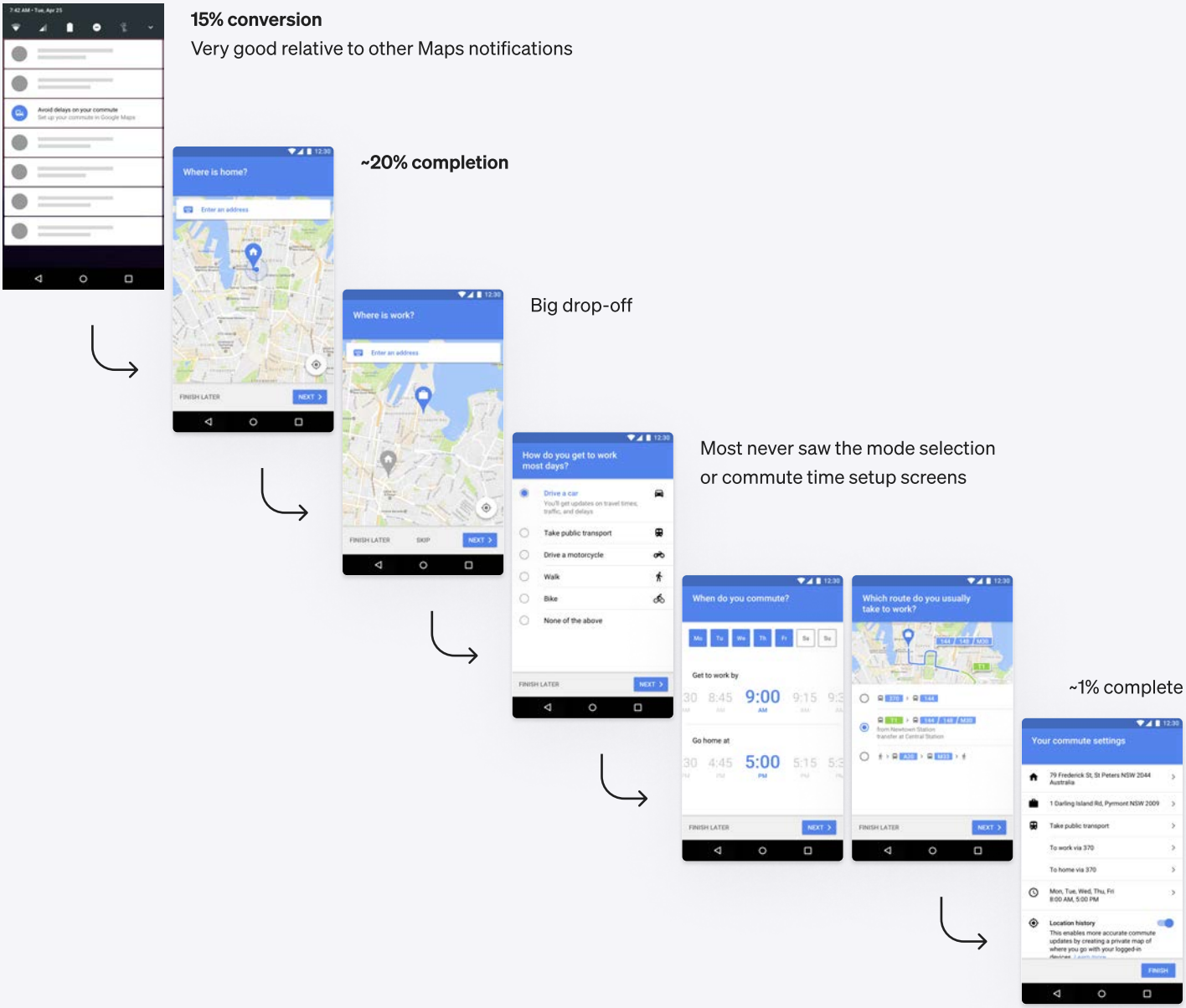
Commute info for drivers and public transit riders ↓

Google Maps

Commute Setup, Revision 1

In order to send users information about their commutes, Google Maps needs to know what their commute is.

I designed a multi-page setup flow (below) to get that information. Although it tested well in usability studies, it ultimately had poor completion rates.



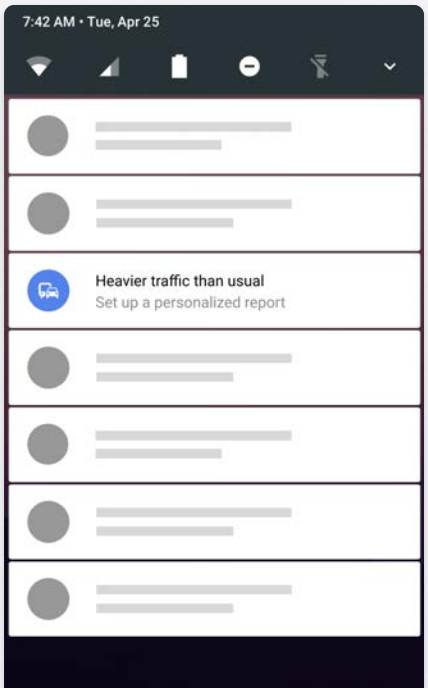
Google Maps

Commute Setup, Revision 2

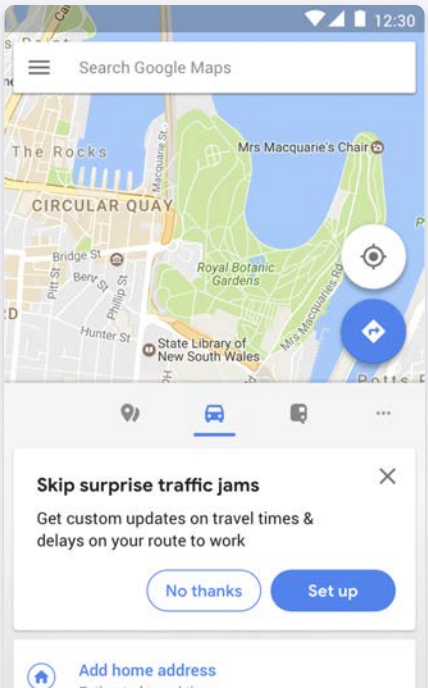
In response, the team switched to relying more heavily on notifications and in-app prompts. We used the same screens from the full setup flow, but instead, we asked for each piece of information individually.

I worked with our copy writer to experiment with various strings to improve conversion. We even tracked time of day (eg. would it be more effective before commute hours, or late at night?)

These approaches were far more successful, and resulted in enough “commute-enabled” users that could receive notifications.



Asking for each step individually

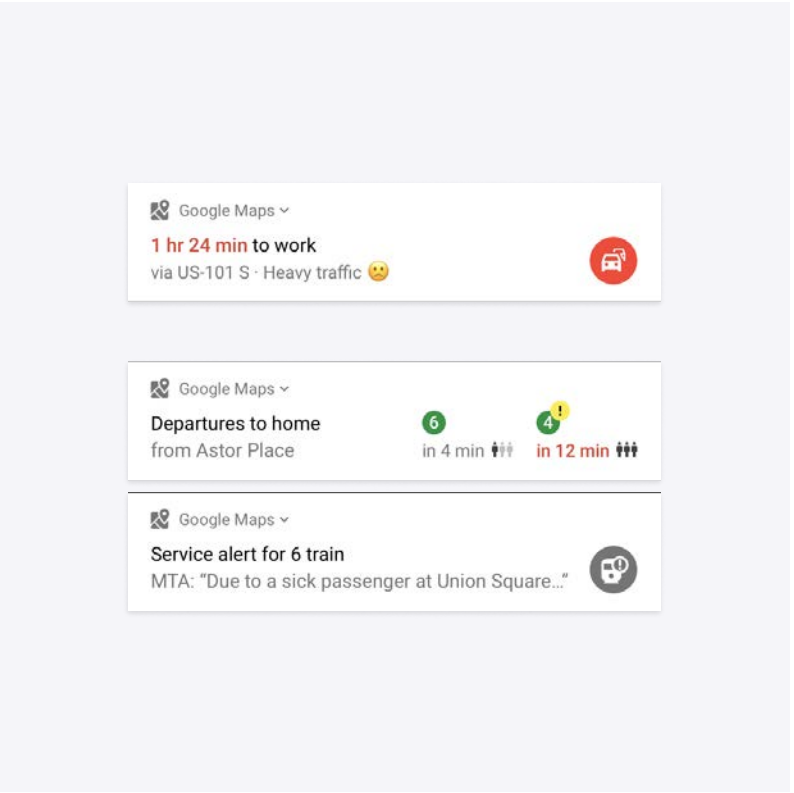


In-app prompts to set home & work

Google Maps

Commute Notifications

With the user's home and work locations, Maps could start delivering commute information automatically. These notifications performed very well relative to other Maps notifications, with an 8% open rate.



Telling commuters about delays & accidents

Partnering with the Search team to show commute information on the (at the time new) Google Home

Outcomes

+ 10M users with home & work enabled
+ 8% open rate on commute notifications (very high)

Citizen App

Year	2018 – 2020
Role	Product Lead

Many of the employees at Citizen are former EMTs, fire fighters, and law enforcement officials trained in crisis response. They looked at the voice-based 911 system, and felt there was room for a emergency response service that took advantage of all the rich voice, video, text, and GPS capabilities on modern smartphones.

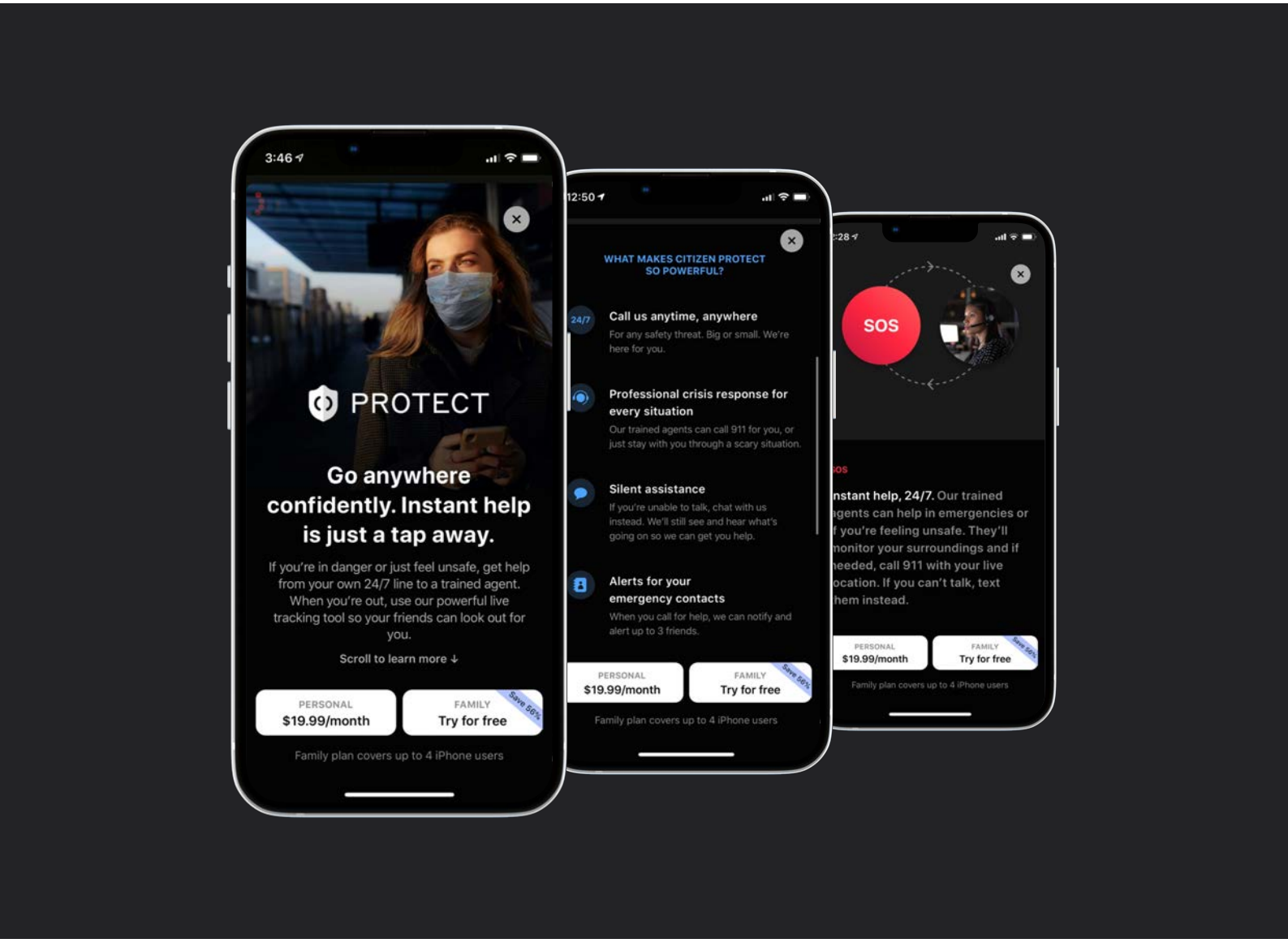
They wanted to build a new service that offers users instant access to a trained safety professional.

I worked directly with the CEO to design, test, and launch this service.

Your Citizen Agent

Keeping you safe

Positioning



Designing a chat and video interface was not challenging, but this **initial MVP was primarily about figuring out how to position and price this new service.**

We focused on the “walking home alone” use case and designed our paywall around it. To start, we made the feature free and shipped it to a small cohort of users each week.

The engineering team (3 people) and I took turns shadowing the agents to learn how people would use it.

Learnings from users

This user called Citizen to call the ambulance for her brother, who was suffering a heart attack.

The agent immediately dispatched an ambulance, and stayed on the line until they arrived.

Sample of calls we shadowed:

- A woman lived by herself and was frequently harassed on her way home. She used Protect multiple times a day. She paid for a similar service from SimpliSafe, but said their agents “did not care about her”.
- A man ran out of gas in the desert in Nevada at 2 in the morning. Our Protect agent dispatched roadside assistance to deliver gas.
- Several curious users called in just to try it. They were shocked when an actual person picked up. We found these were a good opportunity to do user interviews and get their thoughts on the service.
- We commonly heard “I wouldn’t buy this for myself but I definitely want it for my partner / roommate”. (So we added a family plan)

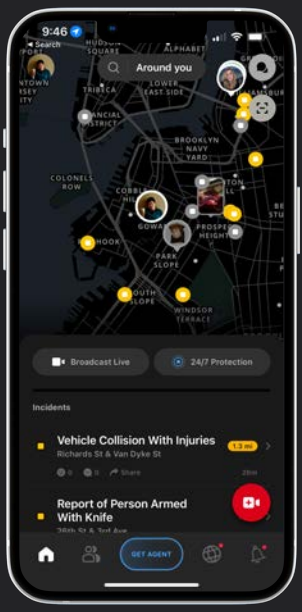
Outcomes

After 6 months of testing, we launched Citizen Protect at $19.99/month with a 7-day trial. We monitored cancellations and renewals, and followed up with cancellations by email.

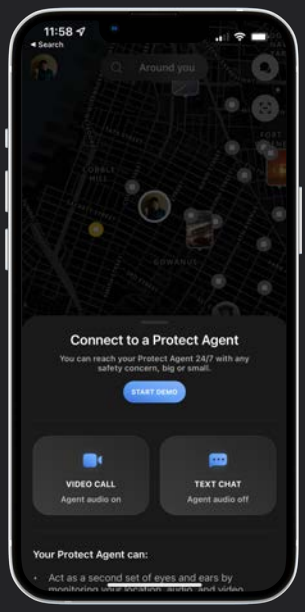
The most common feedback we got was that although users were interested in the idea, they weren't sure what to use it for. In response, we added a simulated demo and explicit buttons for actions like "send emergency response" or "alert emergency contacts".

Post-launch iteration

Earlier iterations put too much emphasis on chat and location, but most people called to talk to an Agent. So we made the Agent more prominent.



Entry point



In-app promo

Added demo

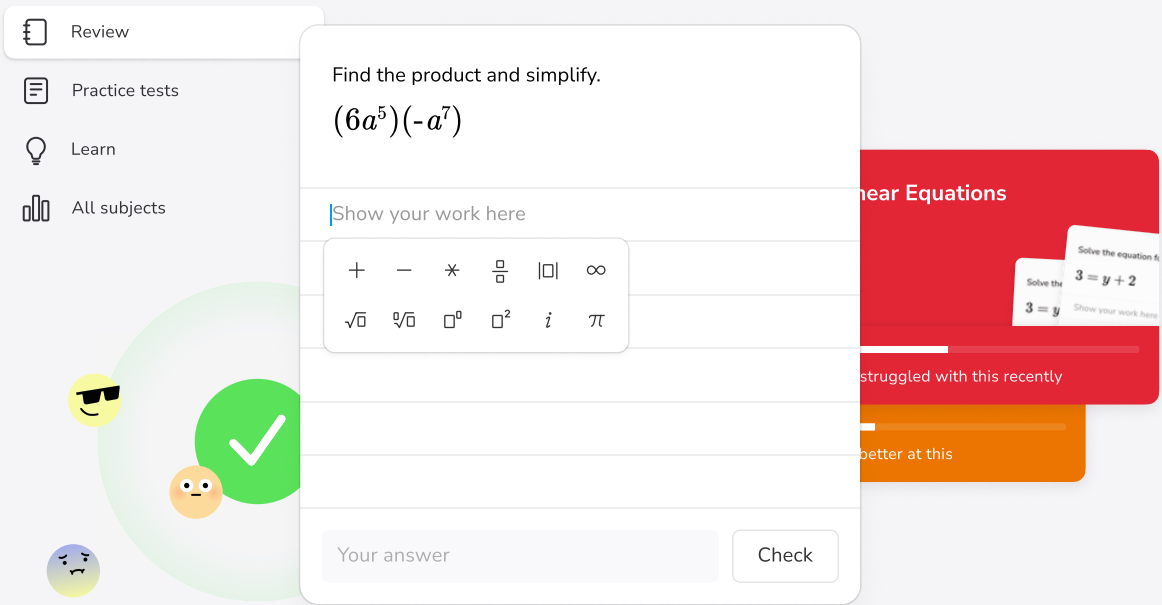
More explicit actions

Edia Learning

Year	2020 – Current
Role	Founding Designer

The co-founders of Edia started the company because they saw that a lot of work at schools was still done on paper.

Paper-based math homework takes teachers a long time to grade, and students have to wait a day or more to get feedback. **If homework could be done on the computer and auto-graded, teachers could use those hours on their students and lesson plans instead.**



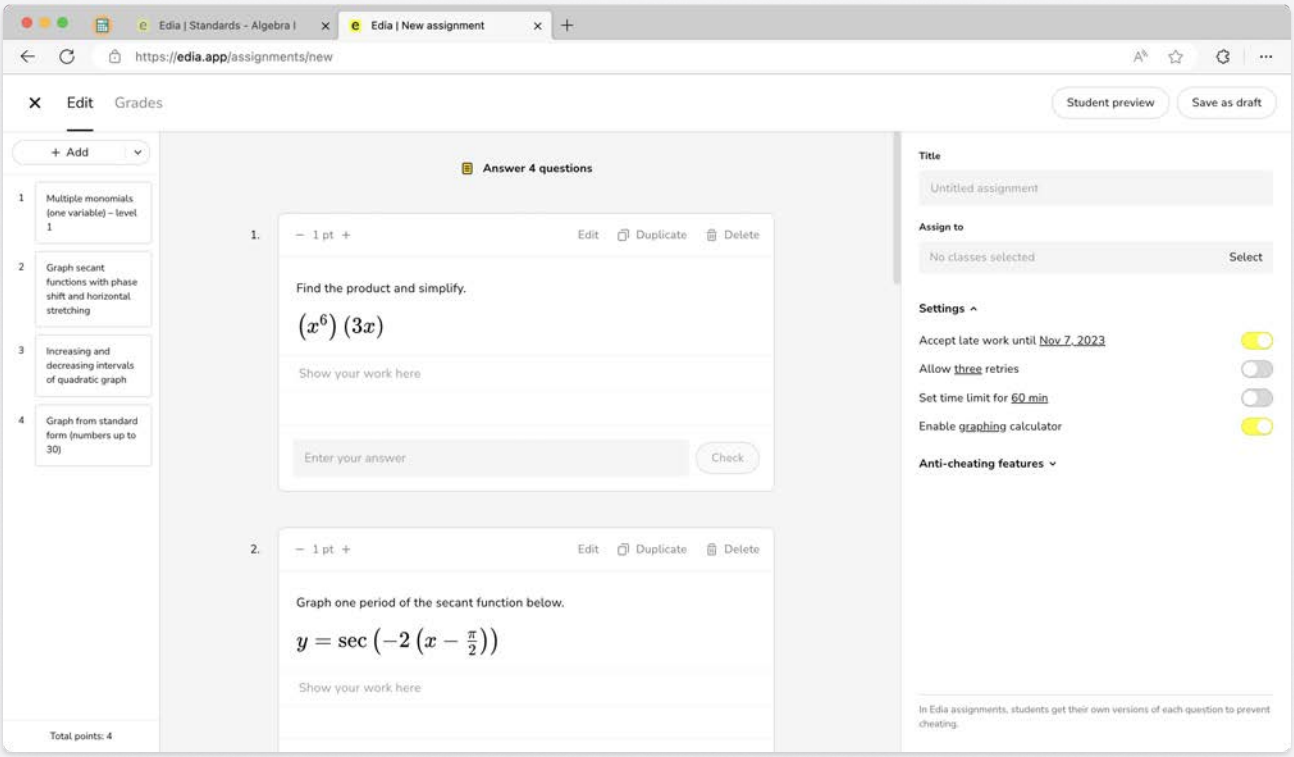
Edia Learning

Designing a simple assignment creator

It took two years of gradual refinement before we had an assignment creator that districts were happy to pay for. Until then, we relied heavily on daily feedback from our free users.

Our early product development cycle:

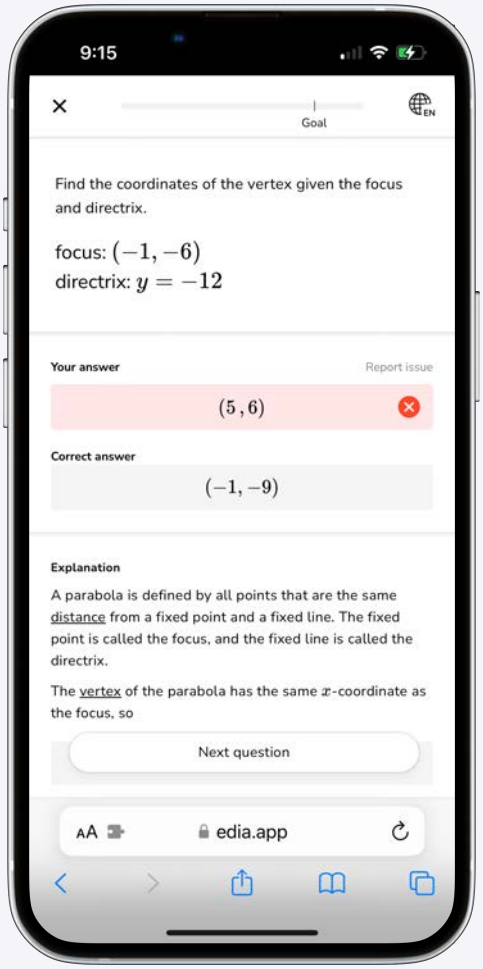
1. Build feature
2. Send cold email to thousands of math teachers
3. Track opens, sign ups, and retention
4. Ask for feedback
    a. In-product surveys
    b. Ask churned users for feedback over email or phone
    c. Put big feedback buttons everywhere in the product
5. Repeat



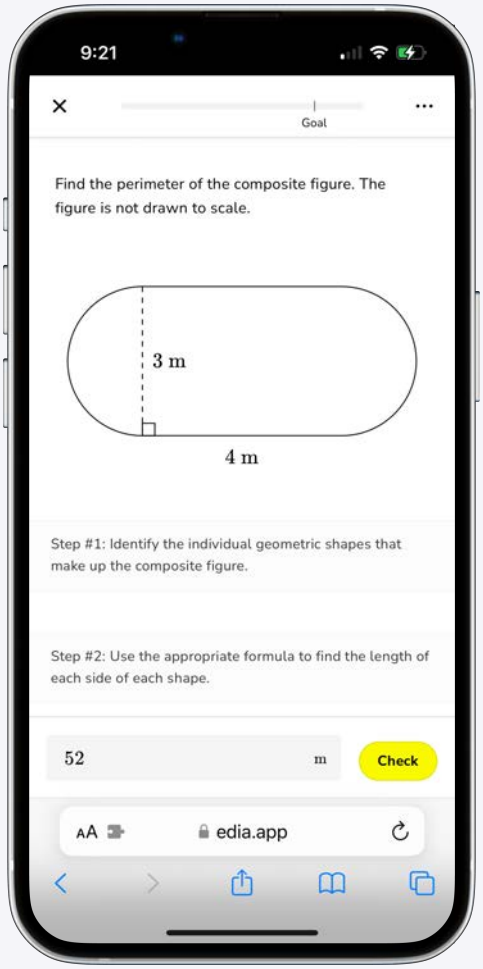
Not pictured: hundreds of daily iterations.

Students prefer Edia for homework

When a student finishes their first assignment on Edia, we show them an in-product survey that asks them if they want their teacher to keep using Edia. **70%+ say yes.** (We think it'd be higher but some of the feedback just complains about the assignment being too hard.)



Every question on Edia has instant feedback and a detailed explanation. Students get unlimited retries and aren't penalized for wrong answers.



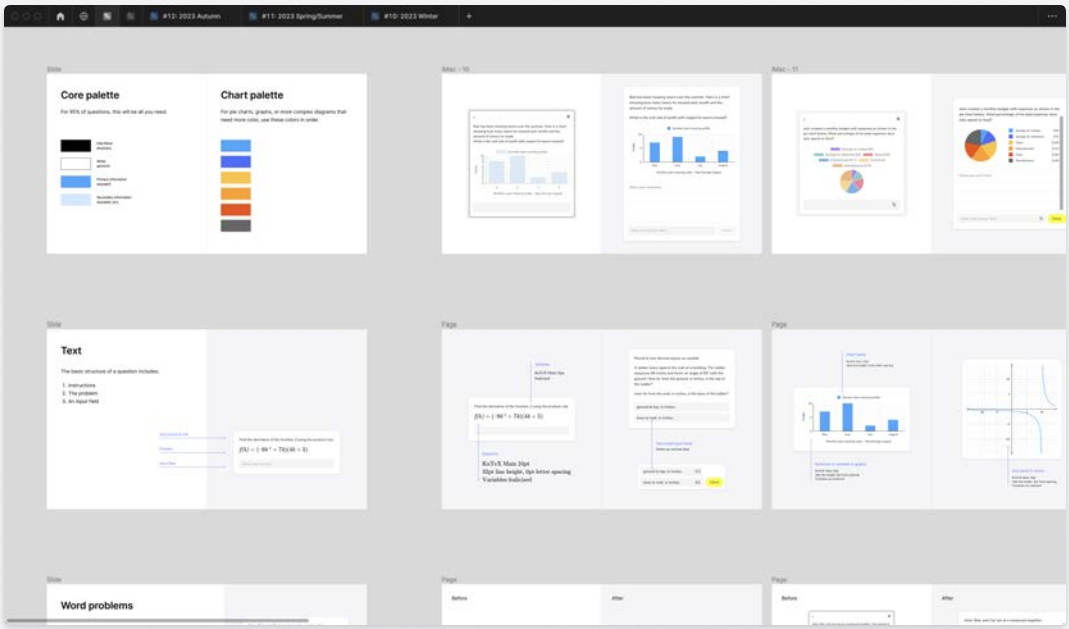
We use OpenAI's API to generate step-by-step guides when students get answers wrong. We try to help students when they're stuck.

Edia Learning

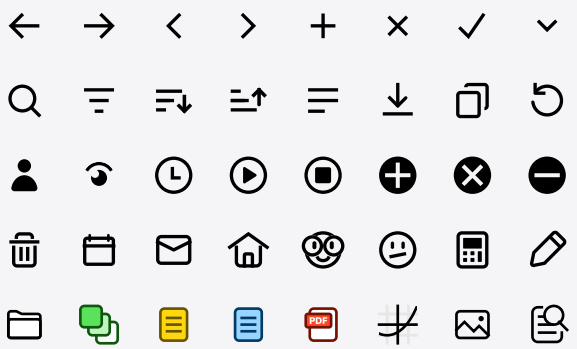
Supporting our content team

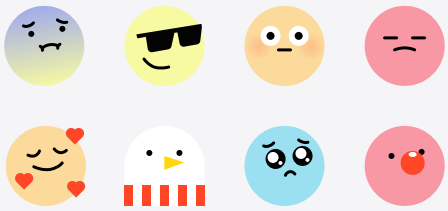
Our in-house content team has written more than 10,000 questions. But once we had three content engineers, we started noticing inconsistencies in font, spacing, colors, and interactions, so I created a style guide that's continually updated with their input.

The style guide contains over 100 examples of do and don'ts. ↓



I also produced our iconography, profile photos, and in-product vector illustrations. They add a pinch of personality and light-heartedness to an otherwise text and number-heavy interface.





Outcomes

2020	→	Today
3 employees	→	**11 employees**
$0 ARR	→	**$X million ARR** (redacted)
0 teachers active weekly	→	**2,000 teachers/week**
0 questions answered/week	→	**1.8M questions/week**

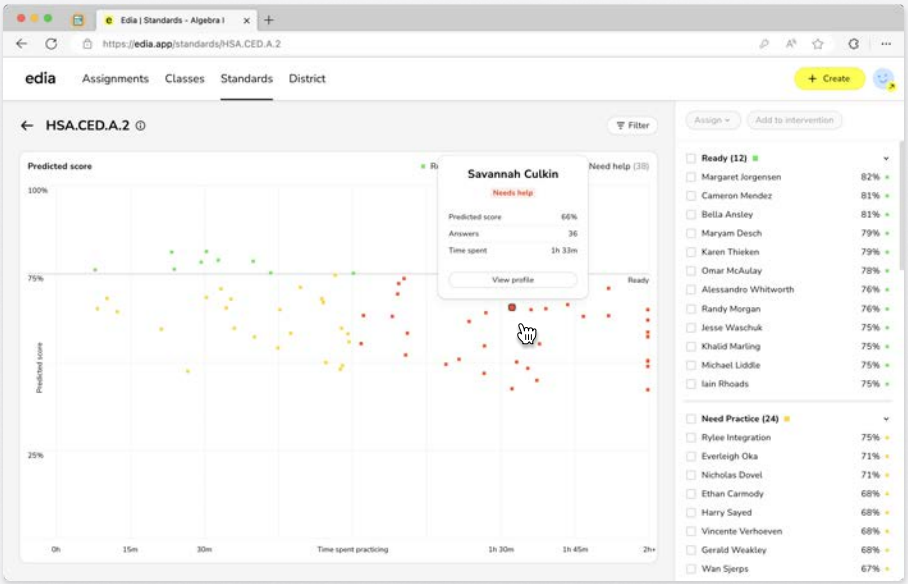
We work with several of the largest districts in the United States, such as Loudoun County in Virginia and Gwinnett County in Georgia.

The design challenge is cohesion

There's a lot more I wanted to include in this case study.

We've expanded beyond homework to build assessments, remedial groups, self-study, and dashboards for district administrators. We made all our content more aligned with curriculums and federal standards. We added graphing and diagramming.

Math departments want comprehensive all-in-one solutions that work for students, teachers, curriculum coordinators, and administrators, and as a designer, I'm in the unique position to tie all their needs together. **At this stage of the company, my key contribution is expanding the capabilities of the product while keeping things simple and cohesive.**



Dashboard for teachers that shows the standards they're required to teach, with the proficiency of each of their students.

Thank you

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Portfolio	hcokim.com