COVID WATCH

First-Time UX Moderated Testing Findings

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Overview

Executive Summary

Background

Overview

In collaboration with the Northern Arizona University (NAU) pilot partner, the Covid Watch user research team learned about first-time user experience of the Covid Watch mobile app

Goals

- Understand how the app works and why using the app is important
- Address privacy concerns
- Build trust in the app and the entities providing the app

Technical details

- Product: Covid Watch Mobile App v1.0 and v1.1
- Features: onboarding flow, functional applications

Project timeframe

Aug - Oct 2020

What is currently working in the app?

1. Sam and Jane example scenario in onboarding
    a. Users positively responded to it.
    b. This scenario draws the reader in and immediately shows the problem that that app is solving.
    c. Humans respond to stories.
        i. Stories are 22x more memorable than plain facts.
        ii. People decide to stay on a page/screen within the first 10-20 seconds, so good stories communicate within that time frame are most effective.
2. The checkmark seal image on “set up complete” screen immediately after onboarding
    a. Prominent imagery and text make it obvious that users have completed the setup process.
3. Graphic design and visual imagery feel friendly, simple, and airy.

Methodology and demographics

Methodology

- Conducted remote, moderated usability test sessions
- Generated affinity map using data from sessions

10 participants* were recruited from NAU

- 3 students, 3 faculty, 3 staff, 1 both faculty and staff
- 1 android user, 9 iOS users
    - Android is low due to technical issues. A privacy function on the Covid Watch app prevented screen sharing

** referred to as users throughout the document*

Key Themes

1. Lack of awareness of the Covid Watch app
2. Concerns about privacy and data
3. High value-content is hard to pinpoint
4. Navigation troubles between the app and external links
5. Unclear language

KEY THEME 1

Lack of Awareness of the Covid Watch app

1. Most users are not aware of the Covid Watch app
   a. Assumes it is an NAU-affiliated app
   b. Lack of signage on campus, posts on NAU social media, and email communications from NAU
   c. May have led to preconceptions about Covid Watch and contact tracing

“What is this app?” *“How is this app private?”*

“How many people are using [the app]?”

Suggestion

1. Work with university partners to create a campaign to spread awareness of the app
2. Promote number of anonymous active users to prove that people are using and trusting the app
3. Differentiate from contact tracing

KEY THEME 2

Initial concerns about privacy and data

1. Users expect the app to collect personal data

Users thought the app was …	*which means they had to give up*
contact tracing …	personal info, contacts, location
NAU-affiliated …	university login, email, classes
Health-related …	symptoms and health info

2. Thinks the app encrypts and shares their information
   a. Thinks any device with Bluetooth would see it
   b. Thinks sharing a positive diagnosis required SSN

3. Bluetooth is insecure and will share info with other devices that are connected to Bluetooth

Suggestion

1. Establish credibility to address privacy concerns
2. Highlight relationship with well-known entities
3. Address privacy issues early on to increase product adoption
4. Continue to educate users about privacy protections in communications from Covid Watch

KEY THEME 3

High-value content is hard to pinpoint

1. Users want to see important content upfront
    a. Share positive diagnosis
    b. How the app works

2. Users needed guidance
    a. Does the app need to stay open to work?
    b. What to do after getting exposure notification?
    c. Where can they find answers to their questions

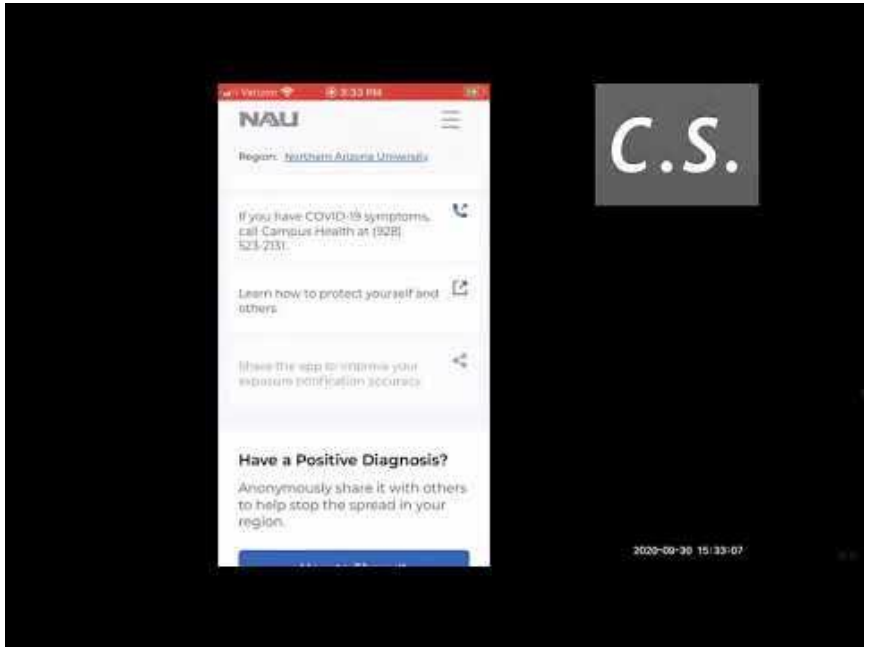
3. Helpful information is hidden inside in navigation menu

Suggestion

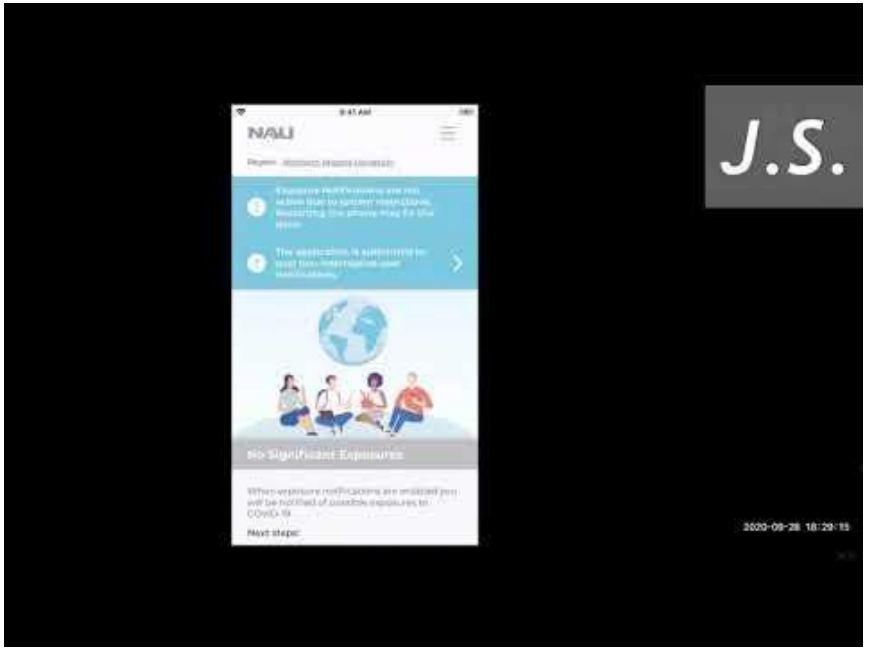
1. Place “Share a Diagnosis” higher on screen
2. Provide help section and/or FAQ in an easy-to-access spot
3. Set expectations of what is expected of the user after onboarding

“In terms of looking for information, everything is right there but [...] it seems almost hidden.”

- Student



Video: Faculty points out issues on the home screen



Video: Staff discusses exposure notifications

KEY THEME 4

Navigation troubles between external sites and the app

1. Users are surprised that they are directed to external websites, away from the app
2. Two older users do not realize they left the app and were on Safari browser
    a. The app home screen looks similar to the FAQs pages on the website
    b. After being directed to the website in a browser, one user was unable to find their way back to the app

Suggestion

1. Identify external links
2. Keep content inside the app as html (e.g. privacy policy, FAQs)

"This is a screen that I didn't get to ... going through the way I did before and now I can't get back ..."

- Faculty

KEY THEME 5

Unclear language

1. The term “significant” is unclear to users in terms of exposures. (slide 23 & 27)
2. Users do know if “share a diagnosis” means that they are self-reporting (slide 17)
3. Users are unsure if they should select “State of Arizona” as a region or their school (slide 20-21)
4. Is “Covid Watch” and “Covid Watch Arizona” the same app?

Suggestion

1. Clarify language and vague terms.
2. Align language with public health experts such as CDC and WHO.
3. Use consistent language about sharing a diagnosis, rather than interchangeably saying share diagnosis or self-report.

“Do we only receive the significant exposures and not all of them?”

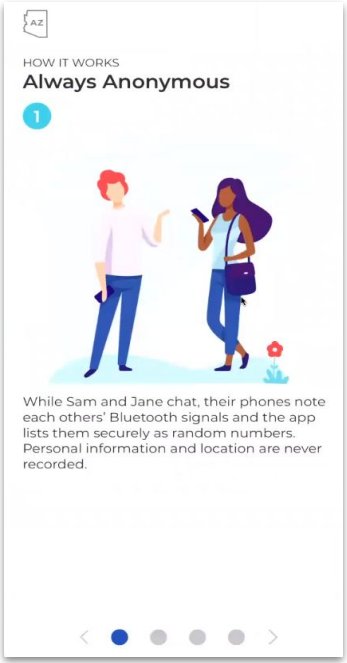
- User

“The term significant is problematic.”

- User

App Walkthrough

Contact tracing preconceptions are at odds with privacy protections



"[The app] can't be anonymous. It needs to know who you are and where you were in order to work."

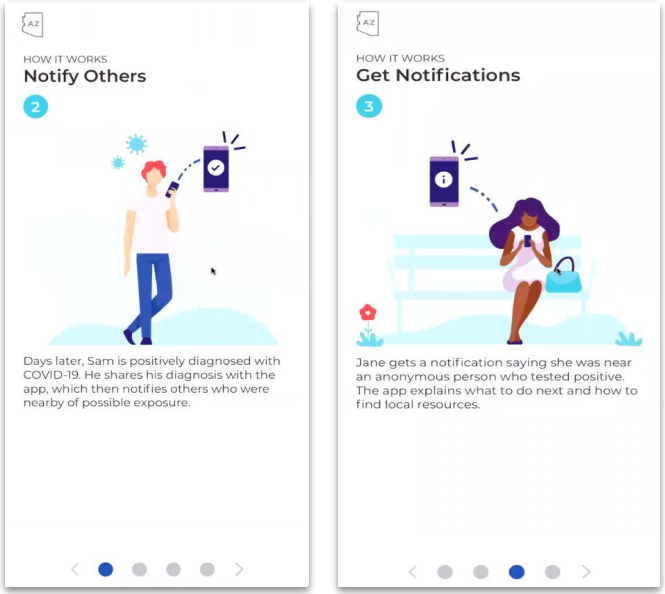
Currently

1. Initially, at the beginning of the test, users expect the app to be a contact tracing app
   a. Anticipate to input personal information
2. Believe that app is created by the university
   a. Anticipate to login using university email
3. Are skeptical that the app is anonymous
   a. Users feel reassured and relieved about privacy after moderators explain how the app works

Suggestions

1. Consider different ways to communicate that personal data is never captured (e.g. messaging, visuals)

The app must emphasize user control and ensure anonymity



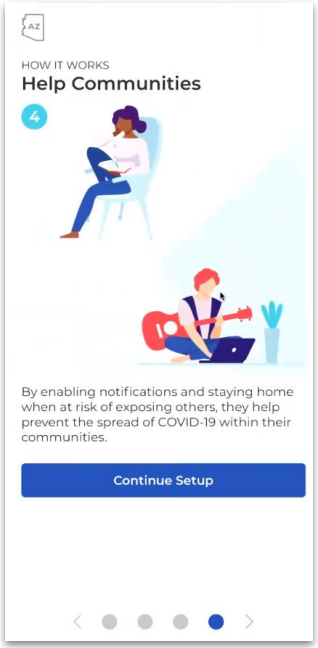
Currently

1. Users do not understand how information is communicated once a person shares their diagnosis.
2. Users overlooked the text content that mentions anonymity.

Suggestions

1. Reinforce anonymity in header text to read “Notify Others Anonymously”.
2. Show an example of Jane receiving an exposure notification to reinforce that the app does not collect personal information.

Although the onboarding storyline was simple, users still had unanswered questions



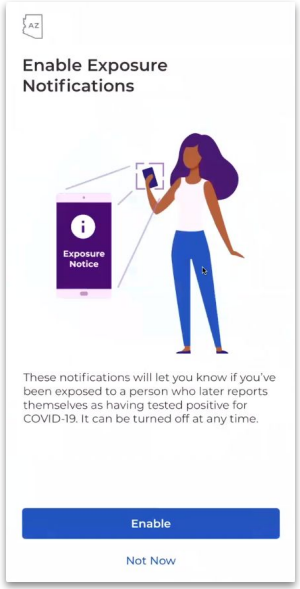
Currently

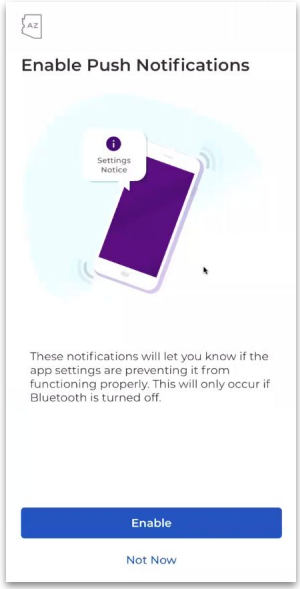
1. Users are unsure how the app works
2. Curious if users can add their friends and family
3. Two users did not make the connection of how the app helps communities
4. Overall, users found the Sam & Jane anecdote helpful and relatable

Suggestions

1. Emphasize that app effectiveness is dependent on users' action (e.g., keeping Bluetooth activated, sharing diagnosis).
2. Show how many people in the community who have downloaded the app so people can see the impact of their actions.

Exposure notifications and push notifications seem like the same feature





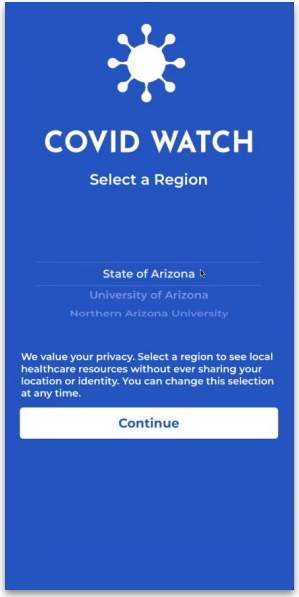
Currently

1. Users wonder if they enabled exposure notifications twice
2. Questions about frequency of alerts to expect

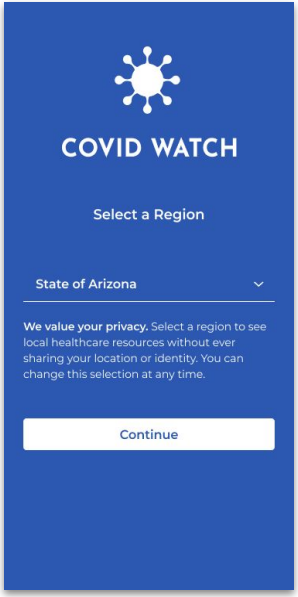
Suggestions

1. Differentiate push notifications by renaming it:
    a. Use different wording rather than referring to is as another "notification" (e.g., *Enable Bluetooth Status*).
    b. Consider avoiding the term 'notifications' entirely for Bluetooth (e.g., *Alert me if BlueTooth is disabled*).
2. Combine enabling exposure notifications and BlueTooth activation into one task

“State of Arizona” dropdown option created confusion



iOS



Android

Currently

1. Both universities are in the “State of Arizona”
   a. In Android design, the user expected other states to be listed

Suggestions

1. Use an alternative for “State of Arizona” since the listed universities are in Arizona.
2. Include an option for “Not affiliated with a university”, which functions as if the user selected the State of Arizona.
3. Consider the need to to have users select a region as this step may be eliminated.

Users fear that region selection will limit their exposure notifications

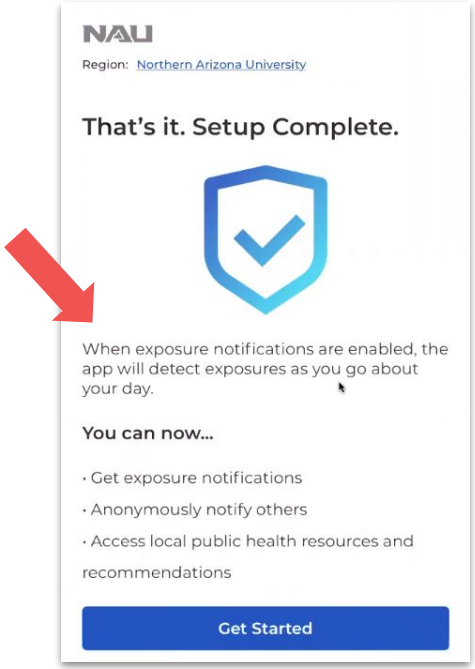
Currently

1. There are questions around the efficiency and value of the app if a person is living in one city, yet working in another city.
2. Users are confused about how to select a region.
   a. If they work at NAU but live somewhere else, which one should they pick?
3. Some users do not understand the purpose of selecting a region.
   a. They do not realize this only affects local resources

Suggestions

1. Remind users that this is an alternative to GPS tracking in terms of links to local resources.
2. Give clear and direct instructions on which region must be selected.
3. Emphasize the purpose of selecting a region and how it benefits the user.

Adapt setup and confirm next steps



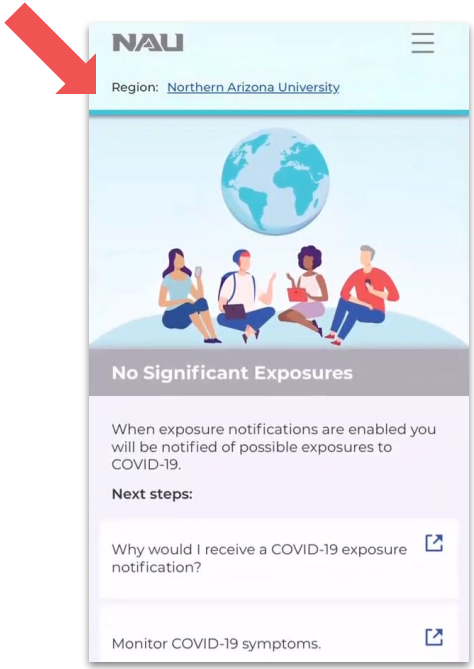
Currently

1. The text "*When exposure notifications are enabled*" makes users question if they've enabled them
2. Text says that the user can get exposure notifications even when notifications were not enabled in the onboarding process.

Suggestions

1. Personalize content to align message with users' actions
2. Include content to address if the app must stay open to function
3. Inform how risk level is determined

First impressions of home screen were confusing



Currently

1. The phrase “Significant Exposures” is confusing
   a. Unclear if this is for users or the region selected
   b. Does this mean they won’t get ALL exposures?
2. The region text “Northern Arizona University” is hard to see in when phone is in dark mode

3. Older users do not recognize this as a home screen

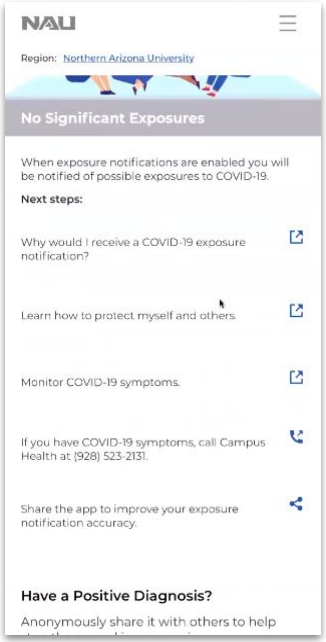
   “There’s no logo, no banner, just a bunch of boxes”

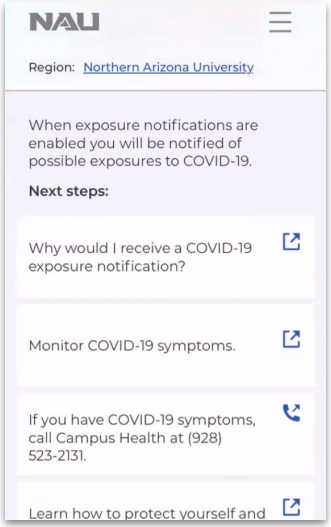
Suggestions

1. Show what “significant exposures” look like as part of app setup complete (e.g., include “i” icon)
2. Bold region name “Northern Arizona University”

Prioritize the most critical user task that needs to be accomplished

Different versions of the home screen's "Next steps"





Currently

1. Sharing a positive diagnosis is too low on the screen

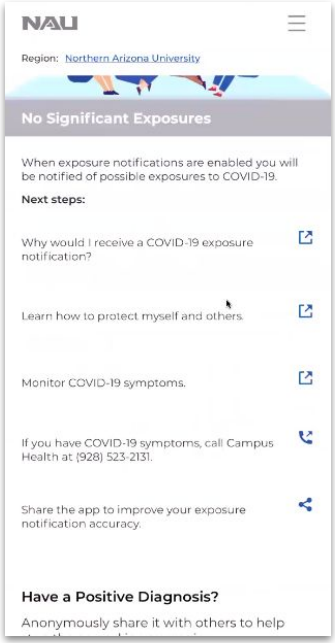
   "The primary function [...] should be the top priority"

2. Inconsistent view on different sized viewports
   a. Smaller phone screens + increased text sizes
   b. Different design with the background & boxes

Suggestions

1. Show 3 key actionable items at top of screen
   a. Share diagnosis, share app, and call campus health

Users want to know how the app works



Currently

1. "Next steps" are not seen as next steps since they include informational content rather than task-based content
2. They need more information on how the app works
    a. Younger users think of it as a "nice-to-have"
    b. Older users are more skeptical and want privacy assurance
3. Users have little interest in COVID Guidelines, they rely on CDC and media for that information

    "NAU websites aren't helpful and [... regurgitates] the CDC"
    "I feel like we've been hit over the head with guidelines"

Suggestions

1. Separate informational resources from next steps (e.g. COVID Guidelines)
2. Continually reinforce how the app works at all touchpoints

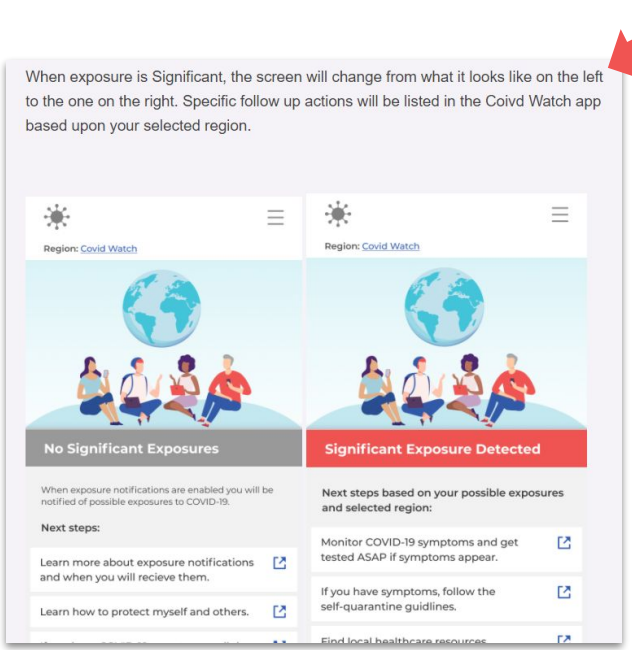
Create a more mobile-friendly experience

Currently

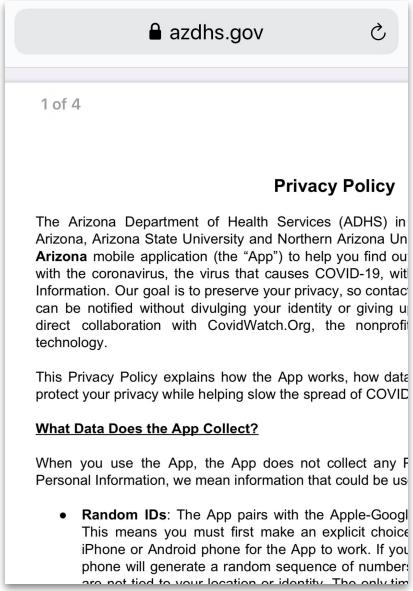
1. Text refers to the images as “Left vs. Right” on covidwatch.org
2. Privacy policy is too long and text is hard to read

Suggestions

1. For references, point out differences in the images
2. Include a marketing version of privacy policy and include it as HTML within the app, rather than linking to a pdf



Covid Watch FAQ on desktop view. Directed from app home screen’s “Why would I receive a COVID-19 exposure notification?”



Privacy Policy pdf from the Arizona Dept of Health Services

COVID WATCH

Create a more mobile-friendly experience

Currently

1. Two older users do not realize they leave the app and are directed to a web browser
2. Users expect the “Covid Watch App” text on the website would take them back to the app

Suggestions

1. Add the external source notes next to the links (e.g., cdc.org)
2. Update the website copy that reads “Covid Watch App” to show that it does not link to the app

Views of the *Covid Watch FAQ* web page on mobile.
Directed from app home screen “Why would I receive a COVID-19 exposure notification?”

Users do not know what to expect if they receive an exposure notification

Currently

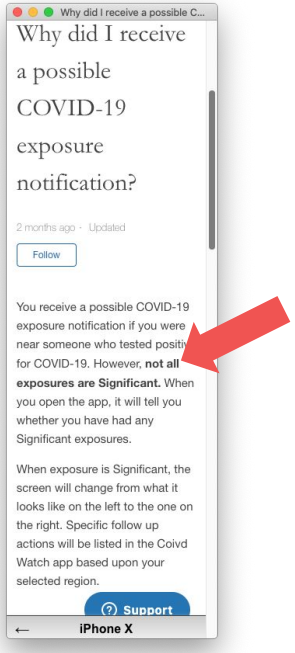
1. Exposure notification is unclear

   "The wording "significant" is troublesome. It's not clear, either you're exposed or you're not."

2. Users wonder why they will not receive all types of exposures
3. Users do not expect to be directed away from the app
   a. When seeking why they receive a notification, the information on the website resulted in more questions
   b. A user got stuck on the website and was unable to get back to the app without assistance from the moderator

Suggestions

1. Clarify what counts as a significant exposure on the app and the website
2. Keep users on the app, rather than pointing them to the website



Covid Watch FAQs on website. Directed from app home screen's "Why would I receive a COVID-19 exposure notification?"

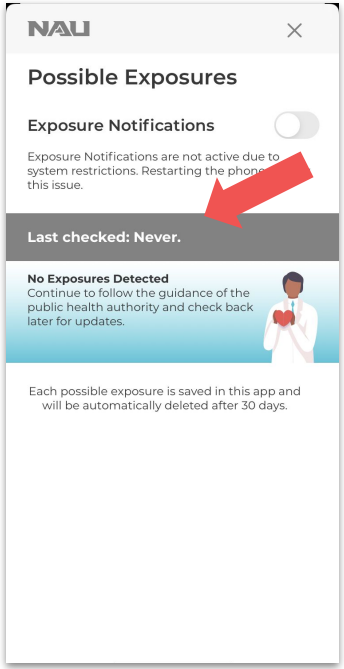
Users do not understand how exposure notifications work

Currently

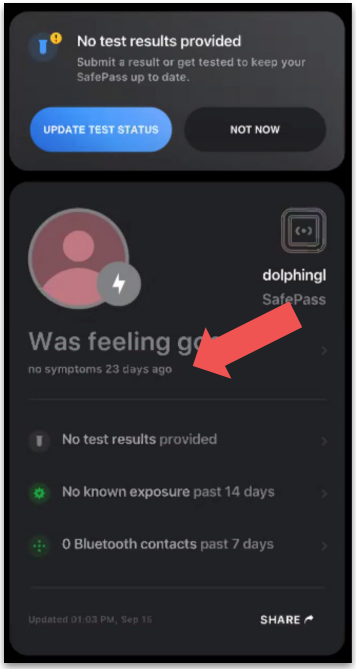
1. Users did not know why their status read “never”
2. This logic is probably dictated where "last checked: [insert date]". So if they've never checked, use "never"

Suggestions

1. Provide a way for users to share their diagnosis from this screen
2. Clarify when the last time the system checked the user’s exposure status. Insert date and timestamps on notifications (see Safepass app example)

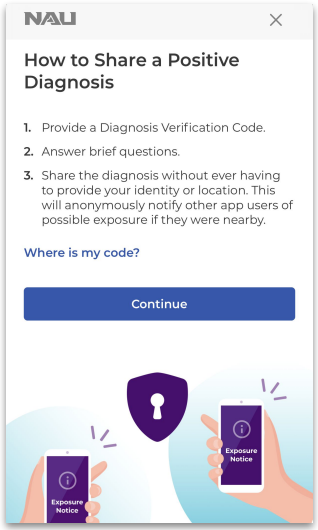


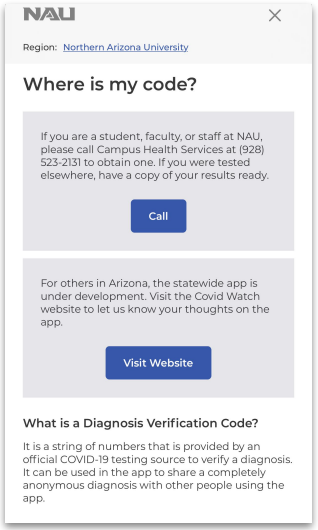
Possible Exposures screen (from navigation menu)



Safepass app by Citizen (US contact tracing)

It is difficult to share diagnosis and find my code





Currently

1. Didn't realize that "Where is my code?" was clickable
2. The explanation was too low and they didn't read it
   a. Android bug only showed ⅔ of the screen
3. Need concrete next steps for non-NAU affiliated users
   a. Can they go to campus health center for testing?
   b. Do all testing centers provide Diagnosis Verification Code?

Suggestions

1. Put a visual indicator/"i" icon next to "Where is my code?"
2. Put explanation higher so users know what to ask for
3. 2nd box should include more concrete next steps for non-affiliated users

Additional Suggestions for Key Themes

Additional Suggestions

1. **Lack of awareness of the Covid Watch app**
    a. Create an awareness campaign for the app
    b. Promote number of anonymous active users to prove that people are using and trusting the app
    c. Stress that this is not a contact tracing app

2. **Concerns about privacy and data**
    a. Show that the app is built using technology from trusted sources like Google and Apple
    b. Highlight support from their state government agency
    c. Prove anonymity by showing a visual example of an exposure notification
    d. Reinforce how the app works in all communication touchpoints
    e. Consider showing what hackers will see (e.g., string of random numbers and dates)

3. **High value-content is hard to pinpoint**
    a. Tell the user what they do/do not need to do after setup
    b. Prominently display “Share a diagnosis”
    c. Show what exposure notifications look like so users know what to expect
    d. Consider including FAQ on the homescreen
    e. Encourage users to share the app to boost their safety network
    f. Place COVID guidelines lower in content hierarchy

4. **Navigation troubles between the app and external links**
    a. Use visual indicators and text to show which links point away from the app
    b. Keep content in the app whenever possible to reduce the need to QA content on external links

5. **Unclear language**
    a. Define what makes an exposure “significant”?
    b. Explain risk levels and why notifications are only for significant exposures
    c. Align terms with what is used in public health entities (e.g., CDC, WHO)

Appendix

Resources

Project Brief

Usability Study Project Brief

Covid Watch App - First-Time UX - NAU

The purpose of this document is to guide & inform the test design, and the UX researchers and test moderators involved in this usability test project.

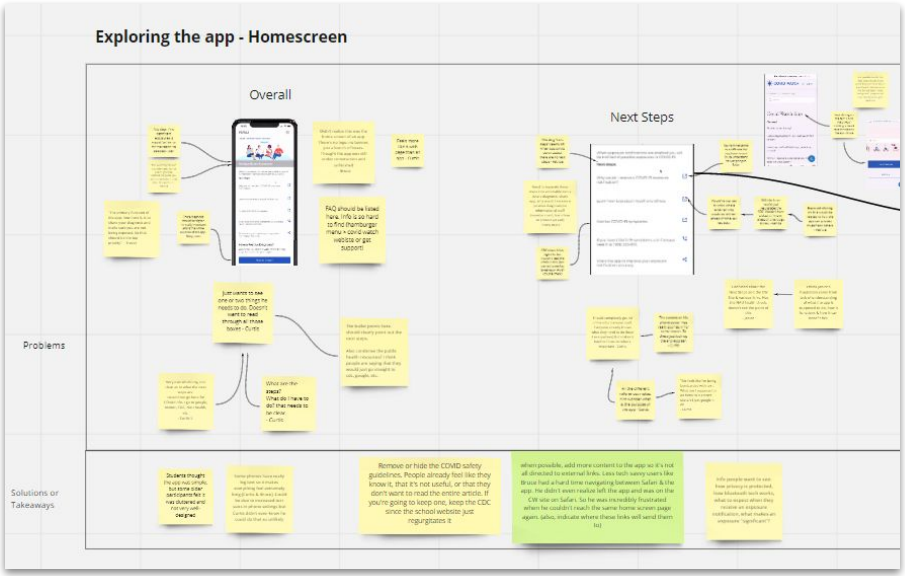
Project Timeframe: **Aug-Sep 2020**
Report target date: **End of Sep 2020**

What is being tested

Product: **Covid-Watch Mobile Application**
Version: **5.0 - NAU deployment**
Features: **First-time user experience, onboarding flow**

- Mockups

Miro board with analysis



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Thank You