

Design Workshop

Human-AI Interaction

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Introducing the RUN app...

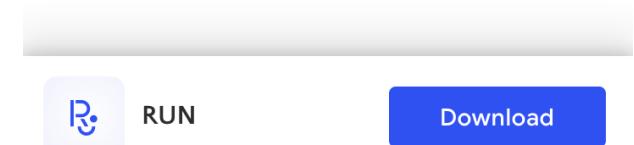
- RUN is a (fictional) mobile app for helping people in their running activities
 - AI included!
 - screenshots from <https://pair.withgoogle.com>



RUN

4.5 ★★★★★ (1,348,231)

RUN is a running app that adapts to your fitness levels and designs personalized workouts to help you improve your running.



Three Main Features



Local routes

1. Elevation matters 1.2 mi

Steep hills and uneven terrain. Great for advanced runners.

■ Diane Garza: "This one is a burner!"

2. Canal run 2.3 mi

Beautiful scenery and a nice leisurely incline make this route unbeatable

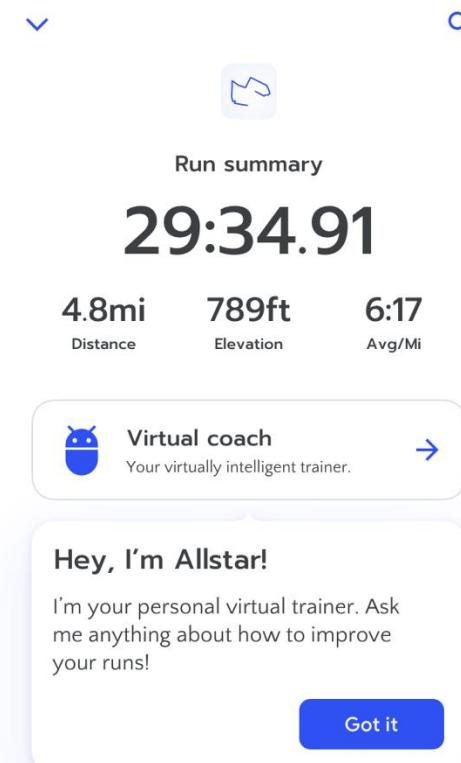
■ Diane Garza: "Wow, such a great view!"

3. Rose path 0.7 mi

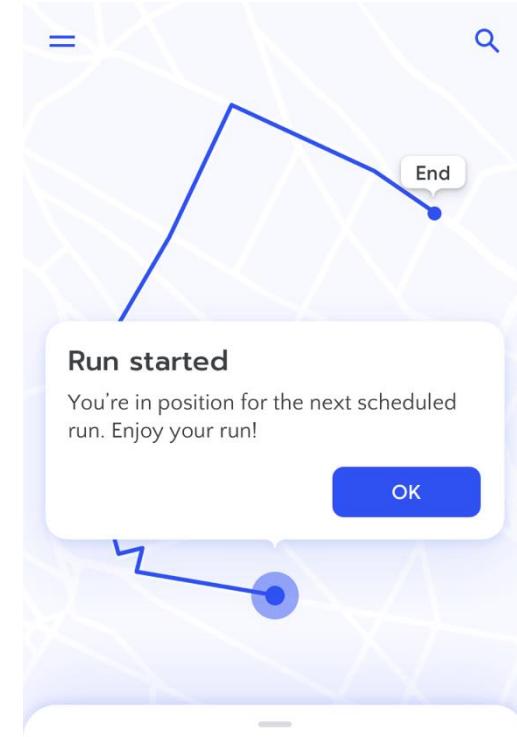
This path goes right by the park. Be sure to stop and smell the roses.

■ Diane Garza: "Perfect for pics!"

Suggesting Routes

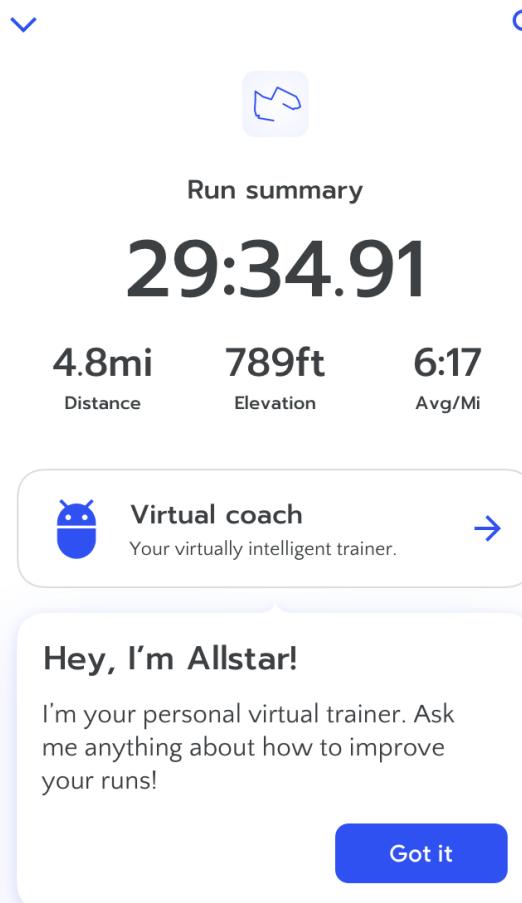


AI Coach (vocal, too)



Tracking Runs

Activity 1: Mental Models



The "Virtual coach" is there to help, to improve people's runs.

- How might users think this works?
- When might it work better?
- When might it work more poorly?

Use the next 2 slides to answer, as a group

Activity 1: Mental Models

Who are the users you have in mind?

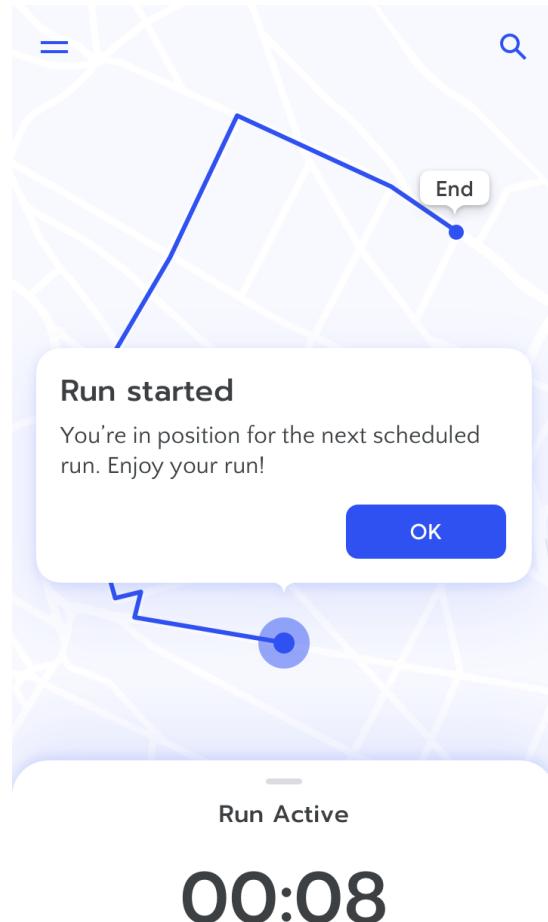
According to this group of users, how does the feature work?

Activity 1: Mental Models

According to this group of users, when it might work better?

...when it might work poorly? What can be changed in the app to compensate?

Activity 2: Errors and Failures



The "Run" app automatically starts tracking a run once it detects contextual information.

- What happens when the prediction is wrong?
- How can the app recover from this?

Use the next 2 slides to answer, as a group

Activity 2: Errors and Failures

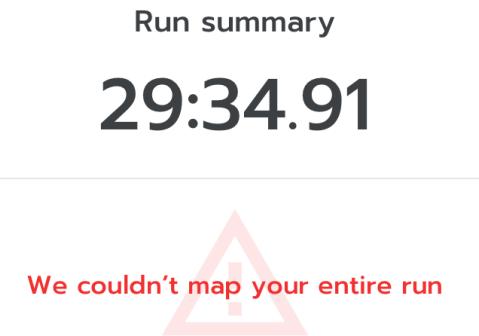
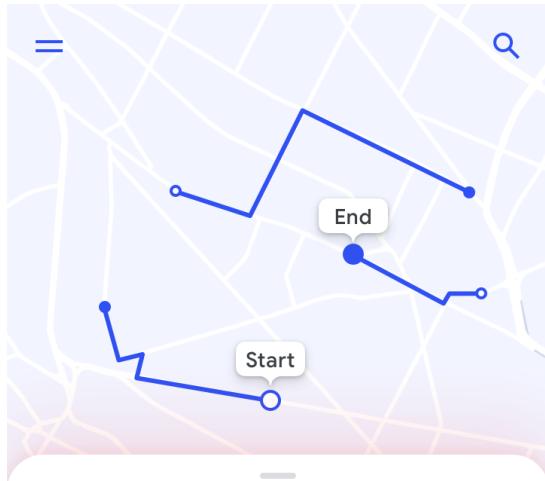
What is a way this feature could fail with low/no consequences?

What is a way this feature could fail with large negative consequences?

Activity 2: Errors and Failures

What technical and/or human methods may mitigate these failures/recover from them?

Activity 3: Errors and Failures



After a run, it may happen that the app is not able to track the entire path...

- How can we change the app design to handle this case?

Use the next slide to answer, as a group

Activity 3: Errors and Failures



29:34.91



Original Design

Improved Design

Activity 4: Guidelines

- Use the Guidelines for Human-AI Interaction on the previous three screenshots
 - <https://www.microsoft.com/en-us/hax toolkit/library/>
- How many "issues" are you able to identify?
- How many guidelines is the app respecting?
- Do you spot any other problems?
 - suggestion: the phone owner is not called Diane Garza

Use the next slides to answer, as a group

Activity 4: Guidelines

AI Design Guidelines	Violation/Everything ok? Where? [A Guideline may not apply]
G1 - Make clear what the system can do	
G2 - Make clear how well the system can do what it can do	
G3 - Time services based on context	
G4 - Show contextually relevant information	
G5 - Match relevant social norms	

Activity 4: Guidelines

AI Design Guidelines	Violation/Everything ok? Where? [A Guideline may not apply]
G6 - Mitigate social biases	
G7 - Support efficient invocation	
G8 - Support efficient dismissal	
G9 - Support efficient correction	
G10 - Scope services when in doubt	

Activity 4: Guidelines

AI Design Guidelines	Violation/Everything ok? Where? [A Guideline may not apply]
G11 - Make clear why the system did what it did	
G12 - Remember recent interactions	
G13 - Learn from user behavior	
G14 - Update and adapt cautiously	
G15 - Encourage granular feedback	

Activity 4: Guidelines

AI Design Guidelines	Violation/Everything ok? Where? [A Guideline may not apply]
G16 - Convey the consequences of user actions	
G17 - Provide global controls	
G18 - Notify users about changes	
NG - Other	

Submission Instructions

- One per team, choose a "submitter"
- Convert the set of slides in PDF and name it as follows:
Lastname_Firstname_ex2.pdf (example: Calò_Tommaso_ex2.pdf)
- Upload the resulting file to OwnCloud, at the following URL:
<https://baltea.polito.it/owncloud/index.php/s/3GAc15gV6VaDmHN>
- By the end of the week (**Feb 8, 2026**)