PHENND Update

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WHAT IS PHENND?

PHENND is the "Philadelphia Higher Education Network for Neighborhood Development" – a Philadelphia – based non-profit organization that focuses on bringing together local colleges and universities, and community-based service-learning partnerships. By establishing such connections, the organization seeks to both improve Philadelphia, in particular the neighborhoods that these partnerships are based in, and enrich the connection between its partner institutions and the city as a whole.

PHENND coordinates a great deal of outreach and communication, both with member nonprofits and partner institutions. One of its most significant sources of outreach is the PHENND Update, a web-based newsletter sent out to thousands of subscribers weekly. The Update delivers news relevant to PHENND and its mission, compiles job opportunities at area schools and nonprofits, and serves as a way to inform members of talks and events.

WHAT DOES THIS APP DO?

This app serves as a mobile version of the PHENND Update newsletter, both allowing users to both read the newsletter in a format designed for mobile devices and expanding the newsletter with several features possible only on mobile devices. Our app allows users to customize how they read the weekly letter: instead of having to comb through the weekly reports to find articles of interest, users can now set which categories or tags interest them, and receive updates only for those, or merely browse articles within such a category or tag. Users can also bookmark articles for easy future access. In future releases we plan to support more even more robust mobile-only features, such as mapping and calendar integration.

DESIGN PROCESS AND CHALLENGES

The design of this app was split into parts: acquiring and storing of articles, displaying lists of articles in the proper contexts and providing an intuitive interface to the user to navigate these articles, and filtering articles and groups based on the user's interests (settings).

The user interface focus around a small number of different screens: a screen which provides lists of articles or categories of articles; an actual article view page; a settings management page; an About Us page; and a splash screen. We started by creating multiple different lists that each started their own distinct Context, one for Categories, one for Tags and one for Favorites. We discovered that this created a number of excessively challenging UI bugs with our action bar, and redesigned the article lists as fragments which are all displayed in the same context. When a different button on the action bar is pressed, the current list "fragment" is discarded and replaced with a new one (whereas previously the old list fragment wasn't discarded and we placed the new list in a new Context). The UI bugs we encountered with trying to get different lists to work nicely with the action bar were the first time we encountered bugs which we fundamental to Android, instead of our code, and while it was frustrating to have to rewrite part of our system because of brittle features of Android, the rewrite ultimately provided a sleek and satisfying implementation. Another frustrating lack we found in Android was a lack of support for a good quality splash screen that displayed a splash screen immediately. We had to implement our own splash screen which doesn't appear until after most of the preparation for launching our app has taken place, meaning that there can be a lag between when the user starts the app and when the splash screen appears. An ideal solution would be for Android to support immediately displaying an image, and then setting up the app, but this feature does not exist.

We needed a centralized system for managing our data and acquiring information, regardless of whether the data was already on the phone or being downloaded from the internet. We created the DataManager class to provide an opaque system for acquiring, processing and storing articles so that we could implement the user facing system without worrying about how the data worked. One quirk of the DataManager was that if two different parts of the program tried to add content to the database at the same time, DataManager could mistakenly add the same article multiple times (ask us about Data Races!), so we had to force certain aspects of DataManager to happen sequentially (instead of concurrently). We used a different data storage system for the user's preferences, Android's PreferenceManager, so that we could rely on the more convenient features of PreferenceManager without interfering with the acquisition and management of the data we were pulling from the internet (everything handled by DataManager).

UX RESEARCH RESULTS

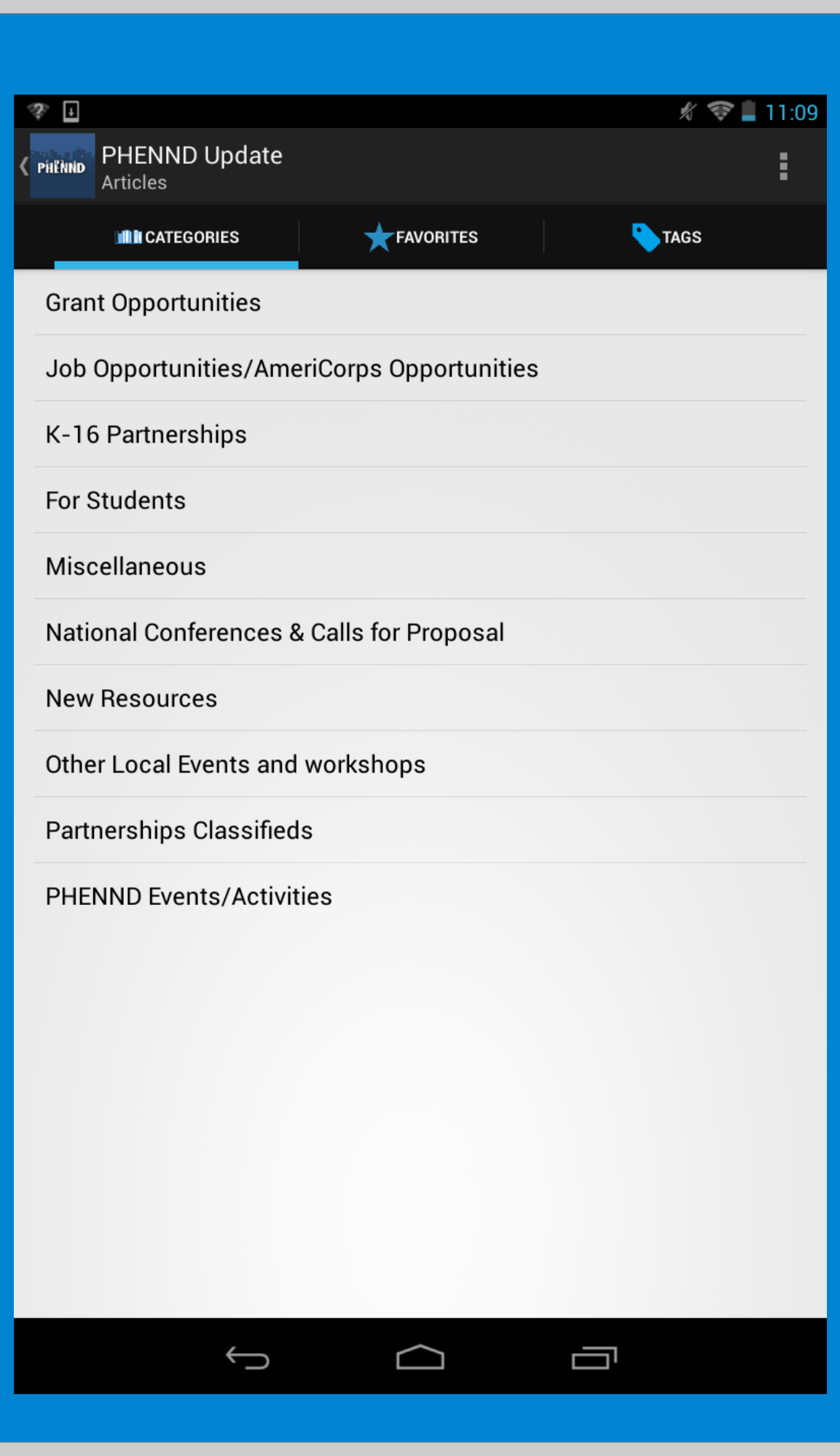
11 Haverford College students were recruited to test the PHENND Update app. Users were asked to use the app as normal to perform some basic tasks (reading an article, adding an article to the favorites list, and flagging tags that they were interested in), and were observed for ten minutes, during which time the experimenters took notes on how the users interacted with the app, taking particular note of any perceived difficulties. After ten minutes, users filled out the standard ten-question System Usability Scale (modified to refer to an 'app' instead of a 'system'), and were asked for any final thoughts on the experience of using the app.

Most users found the app very straightforward, and were able to perform various tasks with relative ease. Results from the System Usability Scale suggested that our users generally found the app useful, clear, and simple, and that they would have few issues using the app themselves in their day-to-day lives. That being said, observation of users (and responses to some System Usability Scale items) demonstrate that there are improvements which could be made to the app itself. According to our findings on the SUS, several users found our app 'cumbersome'. This was echoed by observation of users who struggled to find certain features within the app, such as the Settings page or the option to add an article to Favorites. Additionally, some parts of the app confused users (such as if an empty tag meant that no stories were present or that stories were still loading). These findings suggest that we should see if elements of the app could be streamlined, making common tasks easier, and if certain tasks or elements could be labeled more clearly.

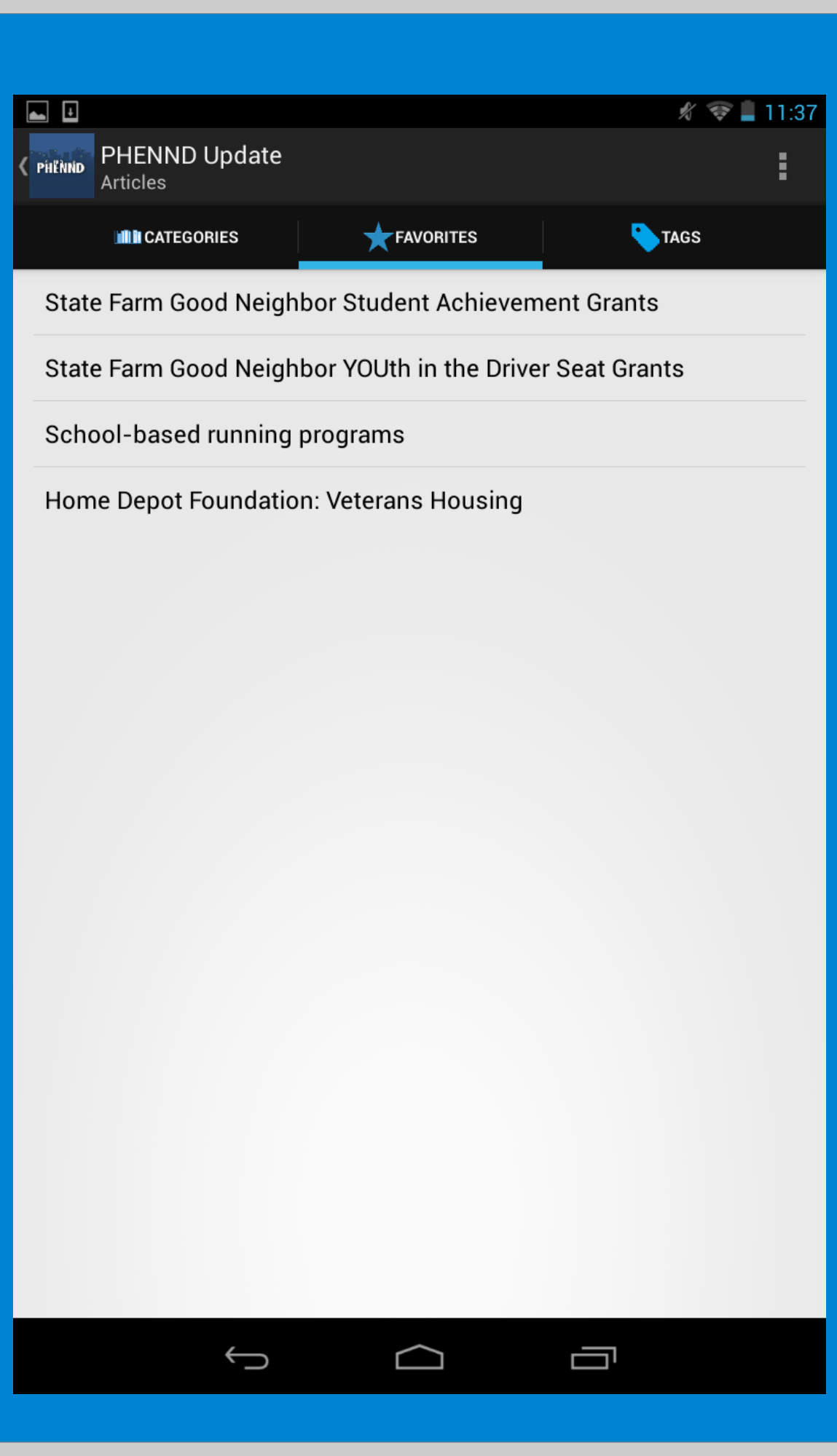
DIRECTIONS FOR FUTURE IMPROVEMENT

There are many elements that we would like to add to this app, if given more time. First and foremost, we believe that we can better integrate the app with Android system features. Specifically, we would like to add maps (to direct users to events) and calendar integration (so that users can add events to their own calendars from within the app). We began development of a mapping feature, but were unable to complete it by our target release date.

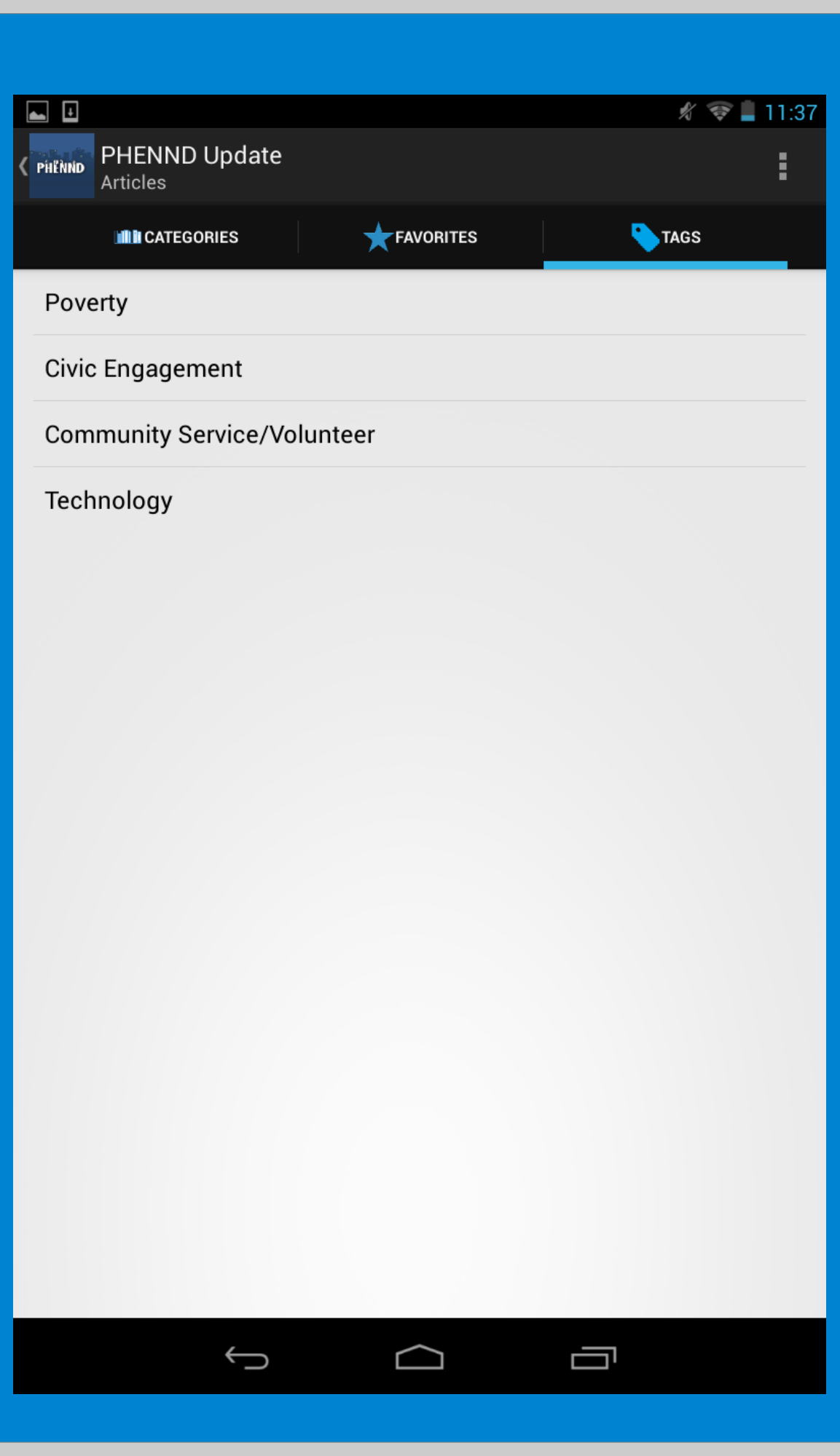
More ambitiously, we would like to add predictive tag/category recommendation in a future release. In other words, we would like the app to be able to suggest tags and categories (or even specific stories) that the user might be interested in based on other tags and categories that they have marked. We would also like to provide social media integration. This could allow users to RSVP to events or discuss articles using Facebook, or use Twitter to share articles that they found especially interesting.



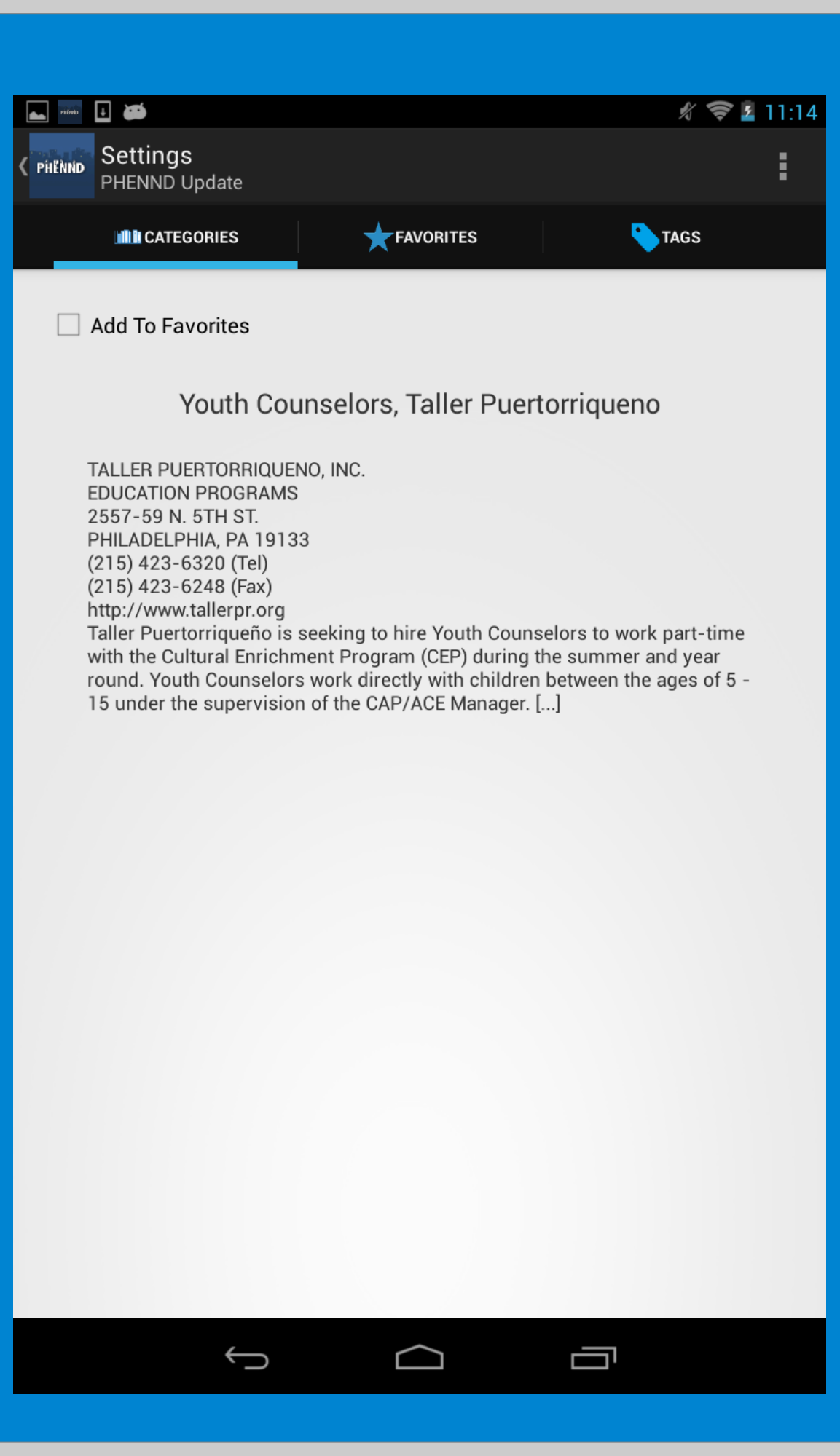
Grant Opportunities
Job Opportunities/AmeriCorps Opportunities
K-16 Partnerships
For Students
Miscellaneous
National Conferences & Calls for Proposal
New Resources
Other Local Events and workshops
Partnerships Classifieds
PHENND Events/Activities



State Farm Good Neighbor Student Achievement Grants
State Farm Good Neighbor YOUth in the Driver Seat Grants
School-based running programs
Home Depot Foundation: Veterans Housing



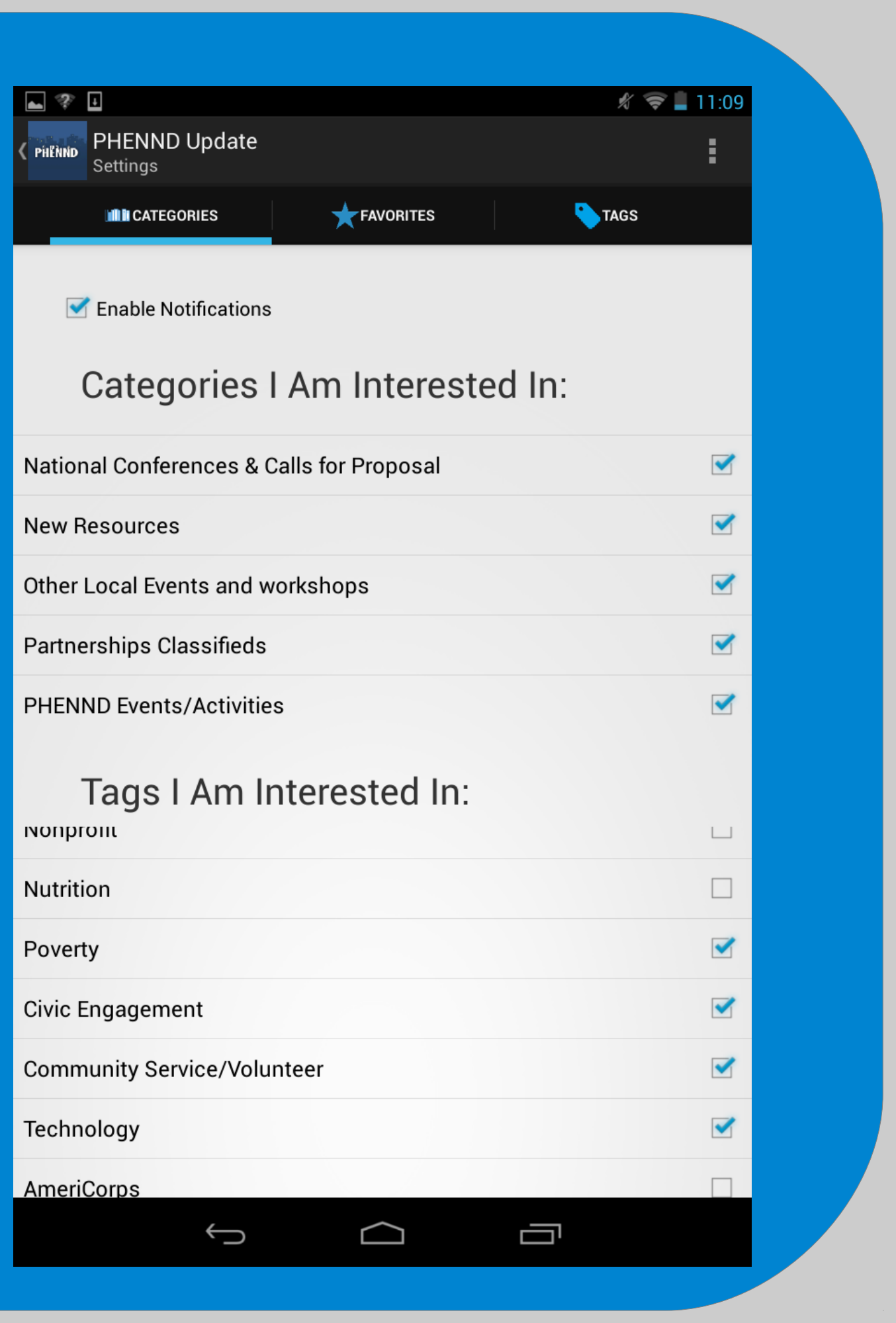
Poverty
Civic Engagement
Community Service/Volunteer
Technology



☐ Add To Favorites

Youth Counselors, Taller Puertorriqueno

TALLER PUERTORRIQUENO, INC.
EDUCATION PROGRAMS
2557-59 N. 5TH ST.
PHILADELPHIA, PA 19133
(215) 423-6320 (Tel)
(215) 423-6248 (Fax)
http://www.tallerpr.org
Taller Puertorriqueño is seeking to hire Youth Counselors to work part-time with the Cultural Enrichment Program (CEP) during the summer and year round. Youth Counselors work directly with children between the ages of 5 - 15 under the supervision of the CAP/ACE Manager. [...]



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Categories I Am Interested In:

National Conferences & Calls for Proposal ☑
New Resources ☑
Other Local Events and workshops ☑
Partnerships Classifieds ☑
PHENND Events/Activities ☑

Tags I Am Interested In:

Nonprofit ☐
Nutrition ☐
Poverty ☑
Civic Engagement ☑
Community Service/Volunteer ☑
Technology ☑
AmeriCorps ☐