All Together Now

Stony Brook University

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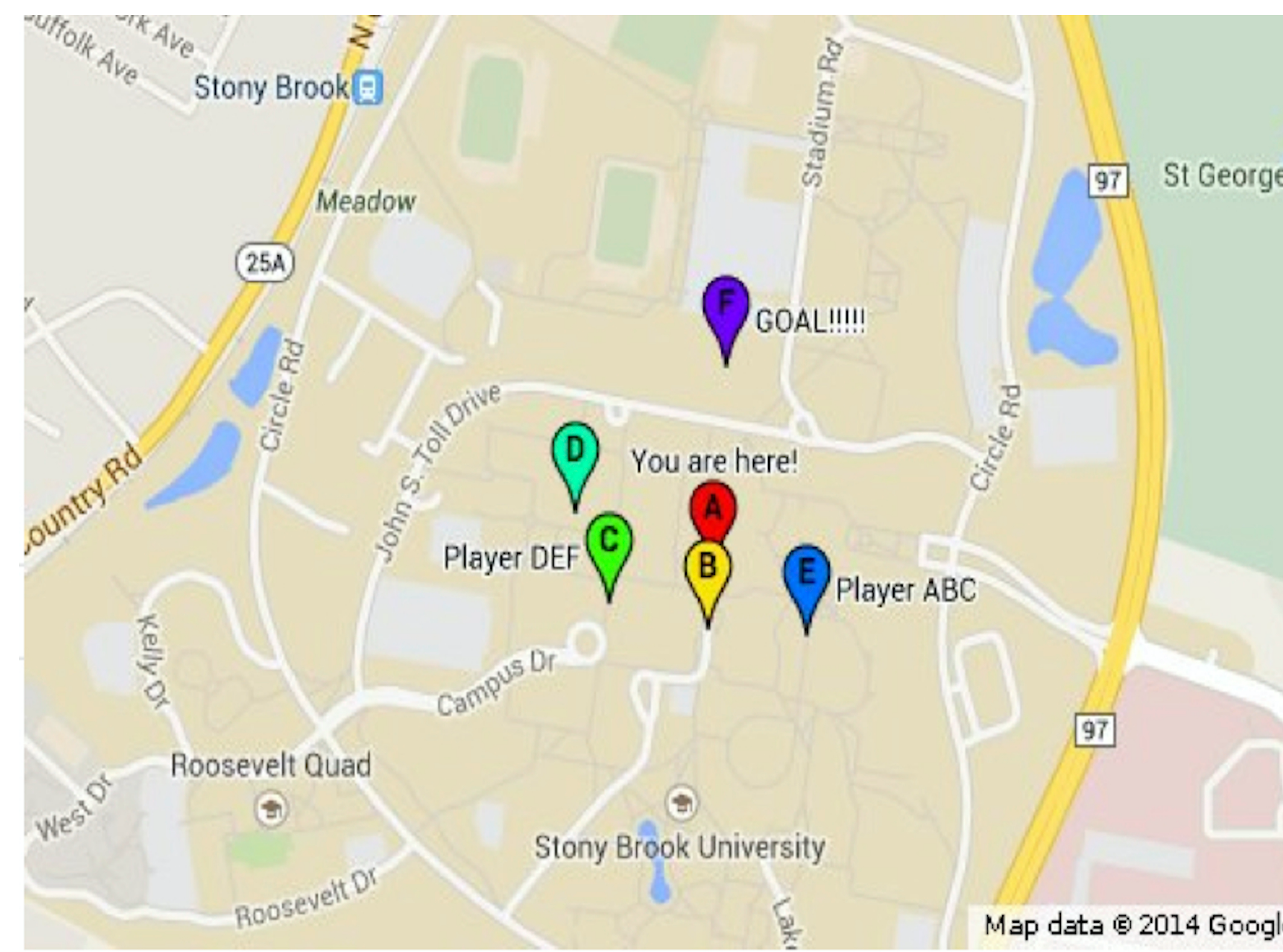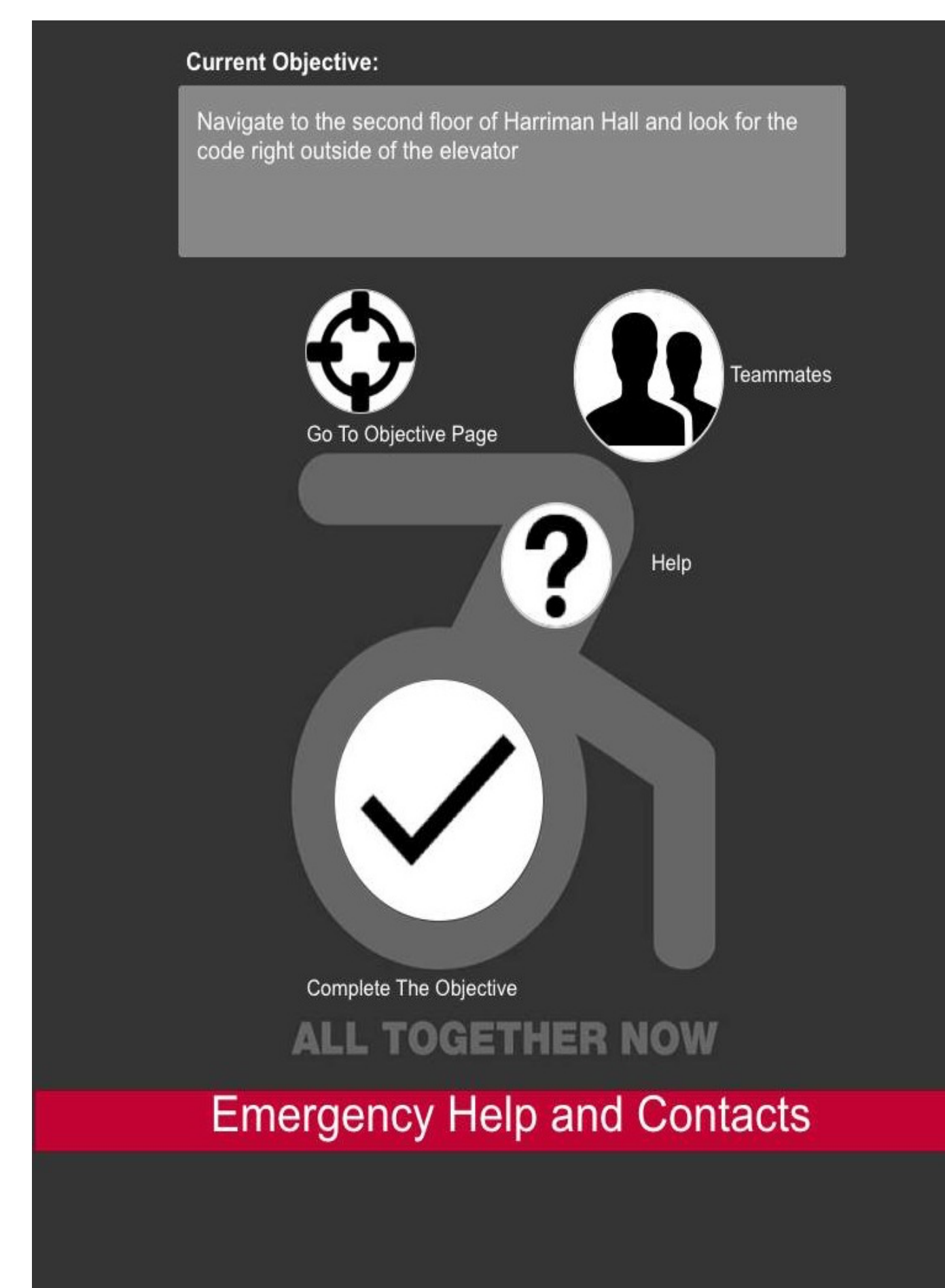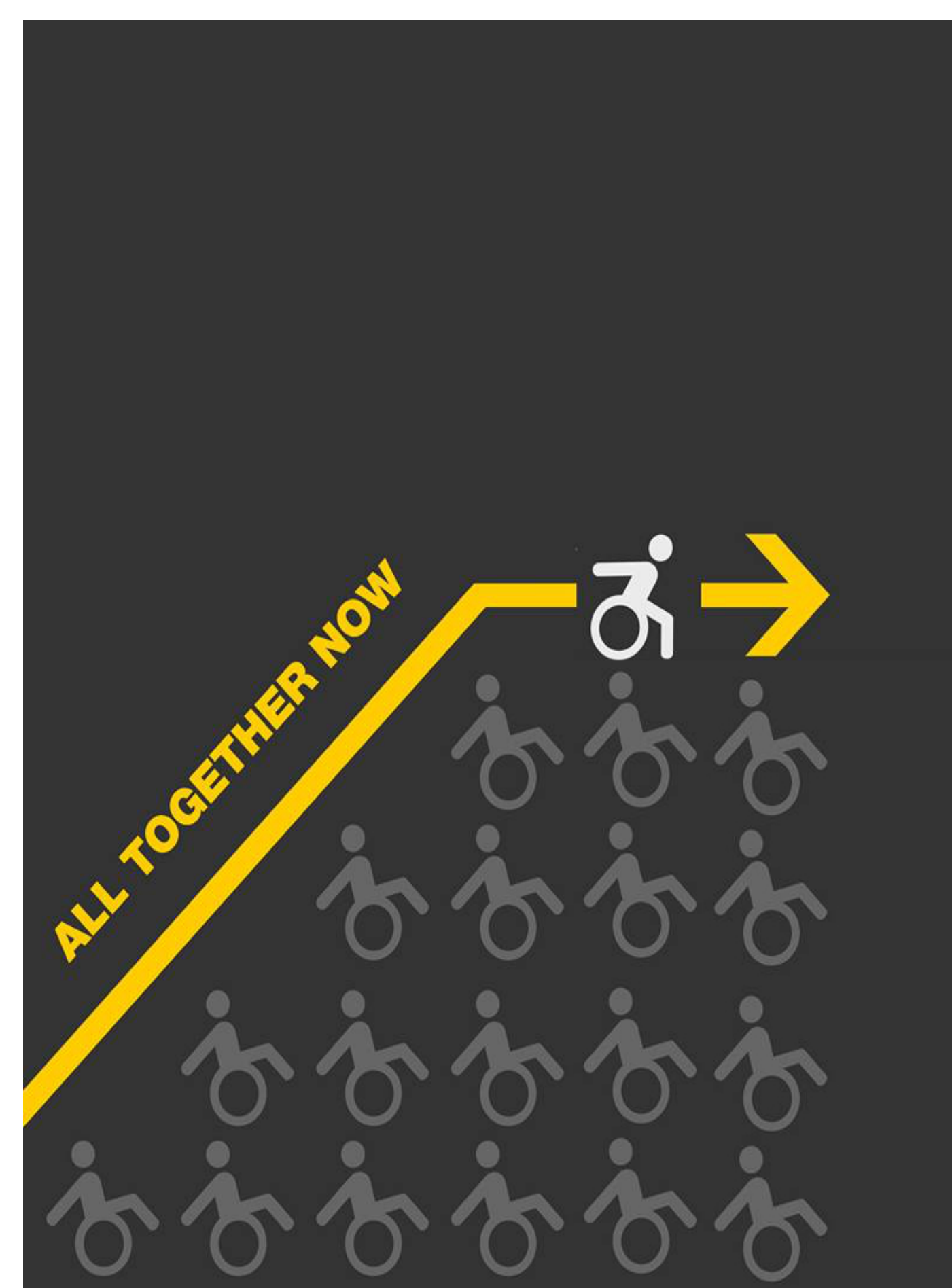Department of Computer Science

Abstract — "All Together Now" is a mobile alternate reality game that utilizes the communal aspects of social networking to help those with mobility impairments adapt to the use of mobility devices. "All Together Now" uses team-based navigation challenges to help users learn the capabilities of their mobility devices while allowing them to communicate with one another for support and learning purposes.

"All Together Now" is built for iPad use and the navigation challenges are set up as a series of benchmarks to complete in order to achieve an ultimate goal. Using Stony Brook University West Campus as a prototype site, benchmarks include: navigating ramps, fitting through doors, and finding elevators in buildings, with the ultimate goal of getting the entire team to the finish line for a communal prize. Progress completing a benchmark is recorded using a code posted at the benchmark site that will be entered through the application when a benchmark is completed, or by picture recognition. If a user is having trouble completing a benchmark, video conferencing is supported allowing users to communicate with one another for support. In addition, forum functionality allows users to communicate textually. Should the user find a mobility issue at a benchmark site, such as a broken elevator or a broken door opener, the application provides emergency numbers to contact to resolve the issue.

Testing and Future Work

This application is sponsored by the TALENT grant and is being developed as a learning activity for a Stony Brook University course entitled "Wheelchairs and Society: Rolling Through Life." While the application is piloted at Stony Brook University, the ultimate goal of this application will be to expand it to other regions, allowing the overall disability community access to its tools and support. In learning about mobility technologies, communal support is the most important component.

"All Together Now" has applied for IRB approval and will begin testing in November. The application will be tested by a group of 5-10 disabled individuals around Stony Brook campus. With this testing, we are aiming to study whether or not the application increases communal support, self-advocacy, and self-efficacy among wheelchair users.