What’s Hazardous
Nick Davis, Dustin Kane, Shanka Udugampola, Jahayra Garcia, Taylor Kawana, Adam Brenner, Sophie Gerrick, Deborah Estrin

Introduction: An Android application that uses the public to collect data on hazards in communities and reports these hazards to their respective authorities

Motivation
• Helping the community
  In New York in 2010, a woman died as she was hit by a falling broken tree branch near central park.
  People knew about this broken tree branch before it fell and thought that it was potentially dangerous, but didn’t know how to report it
  Our Application offers an easier and more convenient way to report hazards

Why Cell Phones?
• Participatory Sensing
  - Participatory Sensing is using mobile devices that every day people use to collect data for researchers such as ourselves.
  - Using participatory sensing is a more convenient way to report hazards because people are able to use their cell phones at any time that is good for them to collect data for us and help their communities at the same time.
  - Lots of people have smart phones, so we are taking advantage of the resources of every day people

Problem Description: Surveys to submit road and sidewalk hazards are inconvenient to use, but hazards are still present

Survey Availability And Length
• Most people are not aware that there are hazard reporting websites
• Most people do not think that they should report a hazard when they see one, it is not a thought that crosses many people’s minds
• Even if citizens are aware of hazard reporting sites, the length of the surveys and the amount of personal information that you need to give, along with questions such as the time and street names, discourage them

Discourage People
• People not aware of hazards in their neighborhood are at risk, and places are neglected
  • People can have potholes in their neighborhoods for months without them being reported, putting their lives at risk
  • Some neighborhoods get more attention than others, so they get their hazards fixed sooner, making them nicer neighborhoods
  • Part of the research element of this application is to judge which neighborhoods are the most hazards occurring in, and the reaction times of the authorities to these reports.

Proposed Solution: An application that alerts users to hazards around them with a short and convenient survey

Application layout
Our application and website mirror each other. The App provides features aimed at mobile users, whereas the website provides more complex features

Website layout
All data, from reported hazards to user information, is stored on a Google Appengine database where it is accessed by both our site and our app.

Survey Availability And Length
Discourage People
• Most people are not aware that there are hazard reporting websites
• Most people do not think that they should report a hazard when they see one, it is not a thought that crosses many people’s minds
• Even if citizens are aware of hazard reporting sites, the length of the surveys and the amount of personal information that you need to give, along with questions such as the time and street names, discourage them

Proposed Solution: An application that alerts users to hazards around them with a short and convenient survey

Application layout
Our application and website mirror each other. The App provides features aimed at mobile users, whereas the website provides more complex features

Website layout
All data, from reported hazards to user information, is stored on a Google Appengine database where it is accessed by both our site and our app.