

Title: Street Story - A Platform for Community Engagement

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Project Description

Street Story (<https://streetstory.berkeley.edu/>) is a community engagement tool that allows residents, community organizations to collect information about transportation collisions, near-misses, general hazards and safe locations to travel. The platform and the information collected are free to use and publicly accessible. The tool was created by a team of city planners, public health and social welfare researchers, engineers, and computer scientists at UC Berkeley's Safe Transportation Research and Education Center (SafeTREC).

Project Narrative

Problem:

Police-reported collision data provides valuable information about transportation collision locations, severity, injuries and fatalities. Agencies and advocates use this data to determine unsafe locations, apply for funding, and evaluate changes in transportation safety. However, communities do not have a consistent way of communicating concerns about street safety, nor do agencies have access to compiled data from communities. Additionally, local, experiential knowledge about transportation safety issues is also a critical data source.

Solution:

The goals of the Street Story program are to provide community members and groups with ways to easily and anonymously provide information about their transportation experiences, and to help local community groups, city planners, and agencies collect and analyze community input about transportation safety in order to 1) increase community involvement and 2) improve community safety. The Street Story platform consists of an online interactive map and survey where members of the public provide information about their transportation safety experiences, and maps and tables that display the data collected. This data can then be used by transportation safety advocates and decision-makers to better understand areas where people feel safe or unsafe travelling. Street Story also acts as an educational tool by drawing users' attention to transportation safety needs as data is being collected and directing users to additional safety resources and research. The Street Story program aligns with the University's mission of providing a public service.

The Street Story program aims to improve usability and accessibility of community-sourced

information by simplifying the processes used to collect this information, storing it in a publicly accessible database, and providing the data in usable formats (maps, tables, and charts).

The Street Story program is available in all communities in California, and the program is readily implementable in other jurisdictions. The Street Story platform is currently well used on and around the UC Berkeley campus, and has the potential to aid campus administration to better understand locations where the campus community feels safe and unsafe.

One of the drawbacks of online community participation is that some demographics are more likely to participate than others; e.g., undocumented communities might not want to engage with technology at all. For this reason, the Street Story program includes a paper version of the survey, which is later input into the platform, and is available in English and Spanish. The Street Story platform collects demographic information to measure how well the platform is collecting a balance in responses.

Project Timeline

Development of Street Story began in Fall 2017. The project built off of lessons learned from SafeTREC’s Community Pedestrian Bicycle Safety Training workshops, in which SafeTREC staff partner with communities across California to train local residents and safety advocates on how to improve pedestrian and bicycle safety and to strengthen collaboration with local officials and agency staff. The project also built off of research about the utility of crowdsourced data in transportation safety that SafeTREC researchers have been working on since 2010.

The Street Story team initially held focus groups and interviews with agency staff, advocates and members of the public to collect information about current community engagement practices and these stakeholders’ needs in terms of community engagement and data gathering/analysis support. The Street Story team then developed a prototype of the online tool and additional resources in early 2018, then reviewed the prototype with stakeholders. Once changes to the first prototype were made, the Street Story team piloted the platform in Bakersfield, CA in summer 2018, where we partnered with local agencies, community groups and media to host events and collect information using the Street Story platform. Based on our experiences and feedback from the pilot, the Street Story team made additional updates to the platform, then publicly released the platform in October, 2018.

In 2019, the Street Story team is working with organizations across California to incorporate Street Story into community engagement efforts.

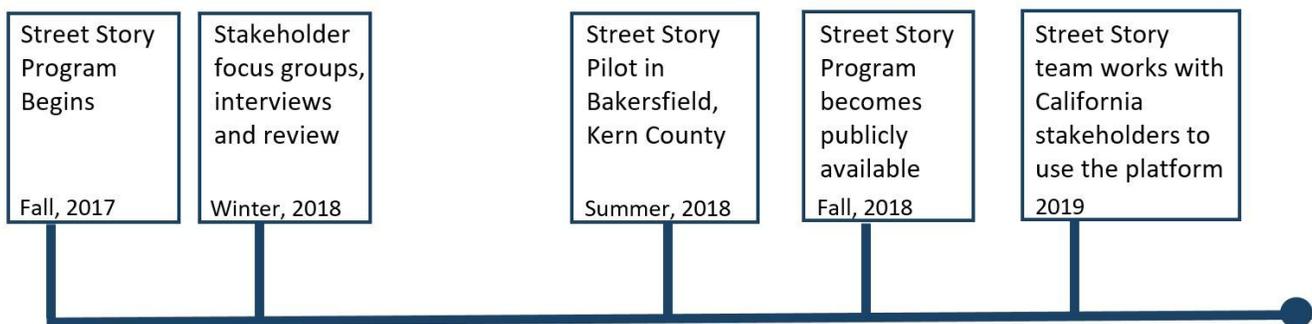


Image 1. Timeframe of Deployment

Collaboration

The Street Story team includes experts in public health, social welfare, computer science, engineering, and city planning. In developing the program, the team collaborated with transportation, public health, city planning and public works departments from a variety of communities across California. The team is currently working with organizations across the state to collect input and incorporate it into

transportation safety plans, evaluations and needs assessments. We are also working directly with community agencies to bring Street Story to their communities and with transportation agencies to help them gather community input using the platform.

The Technology

The Street Story website is built based on multiple open source libraries for web maps and charts and hosted at a Virtual Private Server (VPS) by UC Berkeley Information Services and Technology (IST). It also takes advantage of cloud hosted data services from ESRI to store and synchronize geo-referenced data. A user is able to access the platform with either a computer or a mobile device. The platform provides the interface to add new reports on transportation collisions, near-misses, general hazards and safe locations to travel. A user can report information on a point location or a street segment by going to the map location and filling a survey (Image 2).

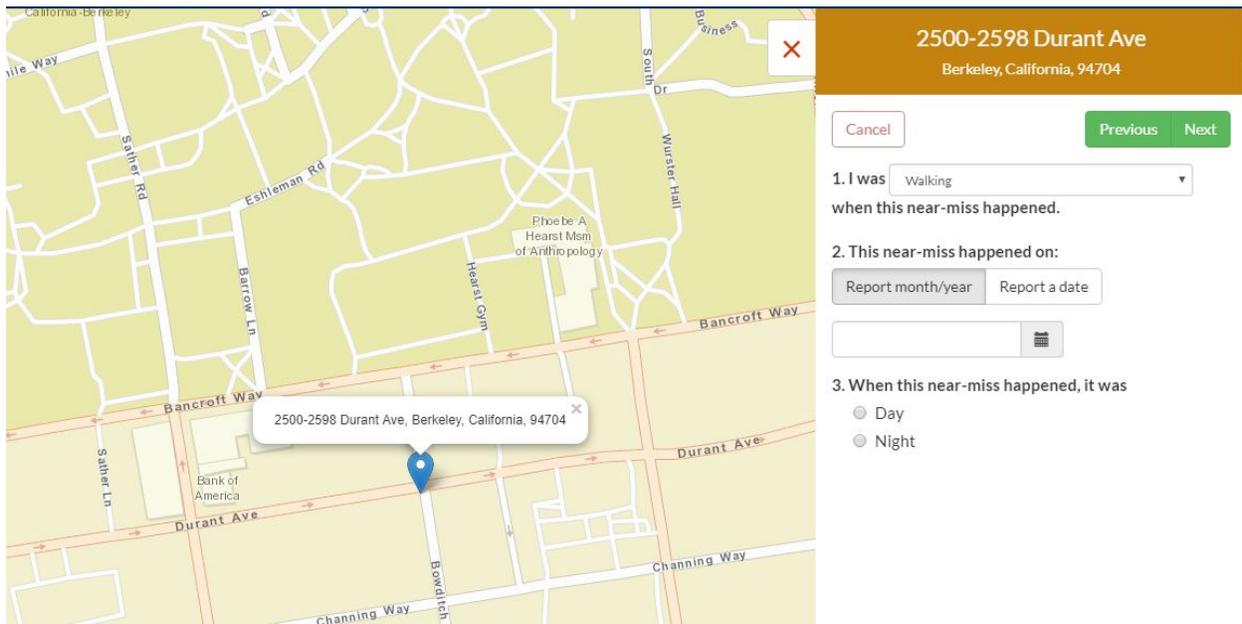


Image 2. The screenshot of reporting information on a spot from Street Story platform.

Once the survey is completed, the input information will be added to the platform and displayed on the map immediately as shown in the image 3.

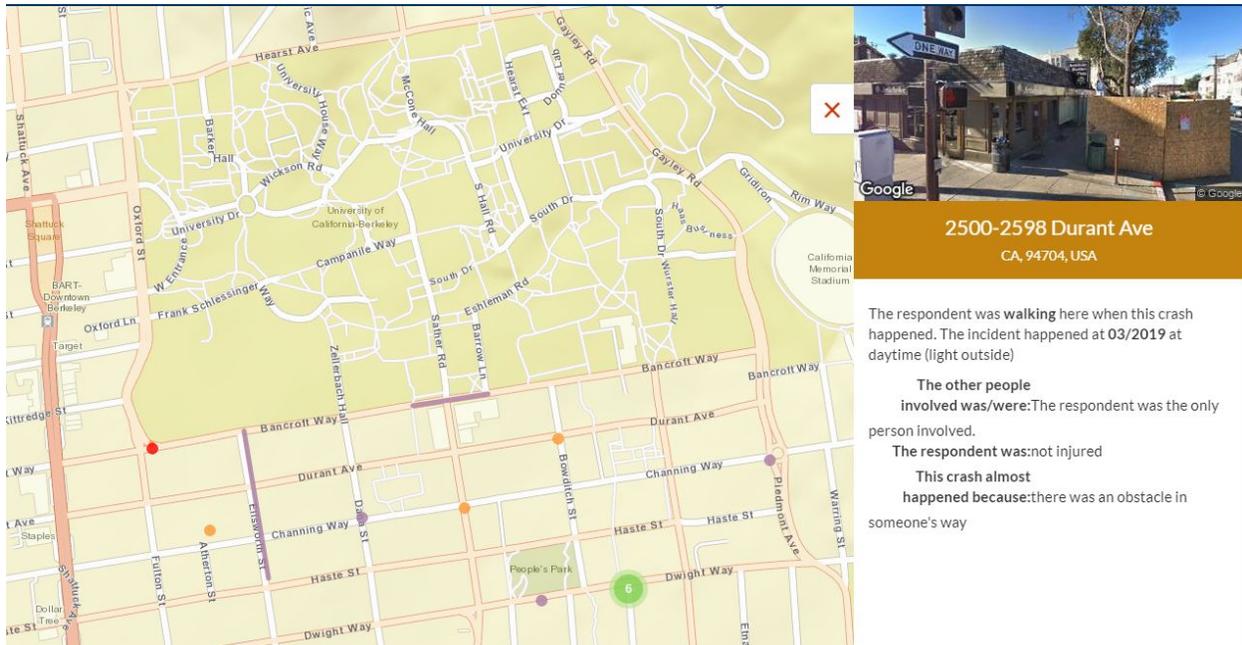
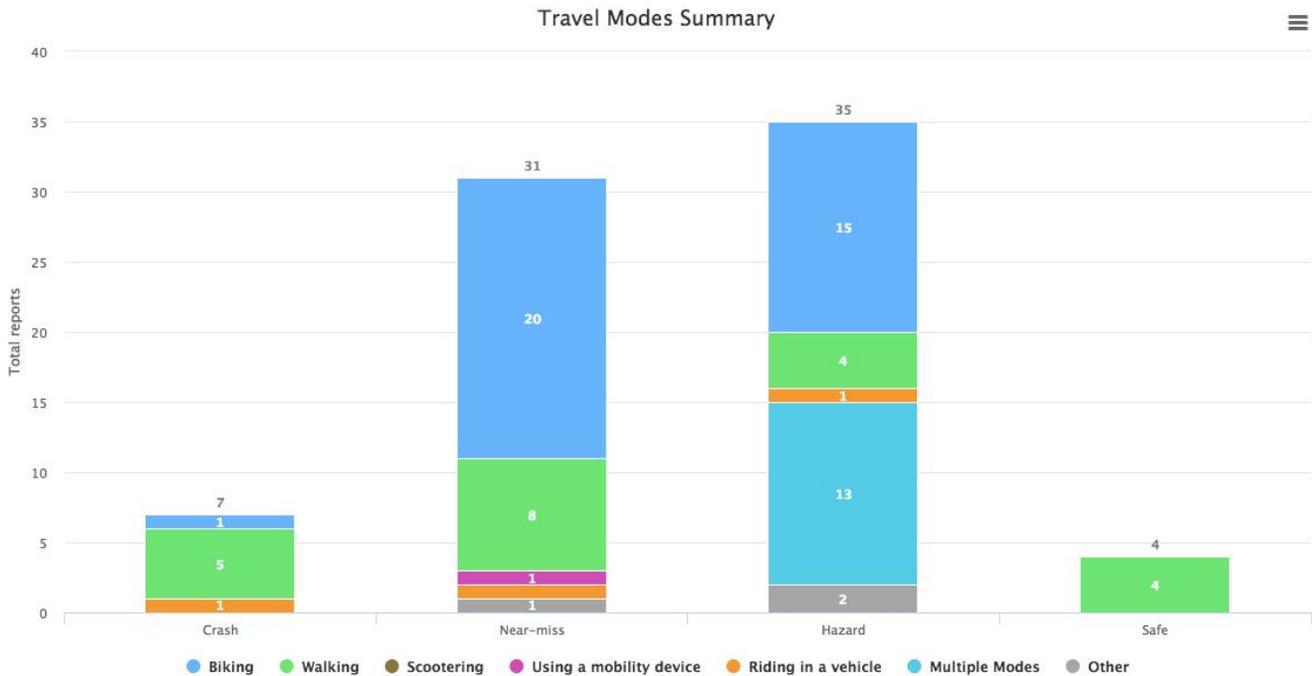
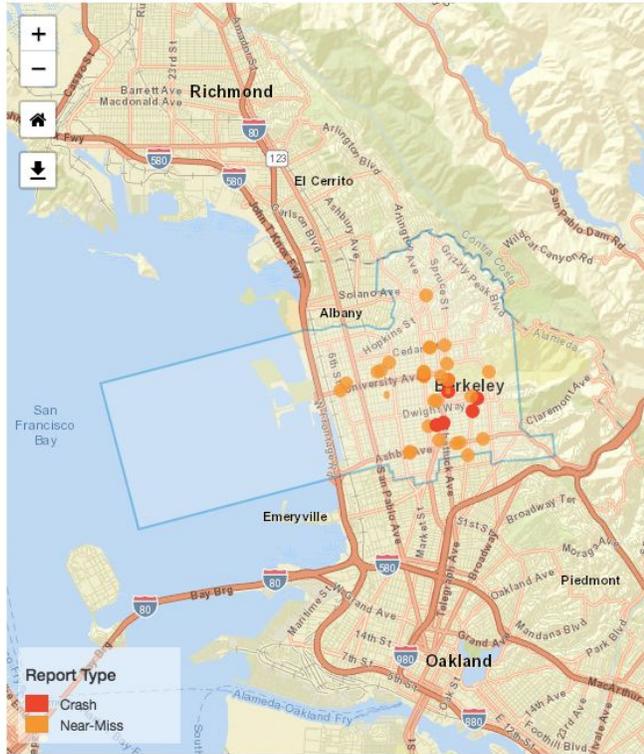


Image 3. The screenshot of the tool after submitting a report.

The Street Story platform also provides a data summary for the public to review the reports collected in the selected region. The summary data is provided in maps and charts that can be easily printed or downloaded (Image 4). Charts and tables include information about the reports made, as well as the demographics of the participants who have inputted the information (see Street Story “see data” tab).



Crashes / Near-misses



Hazards / Safe places

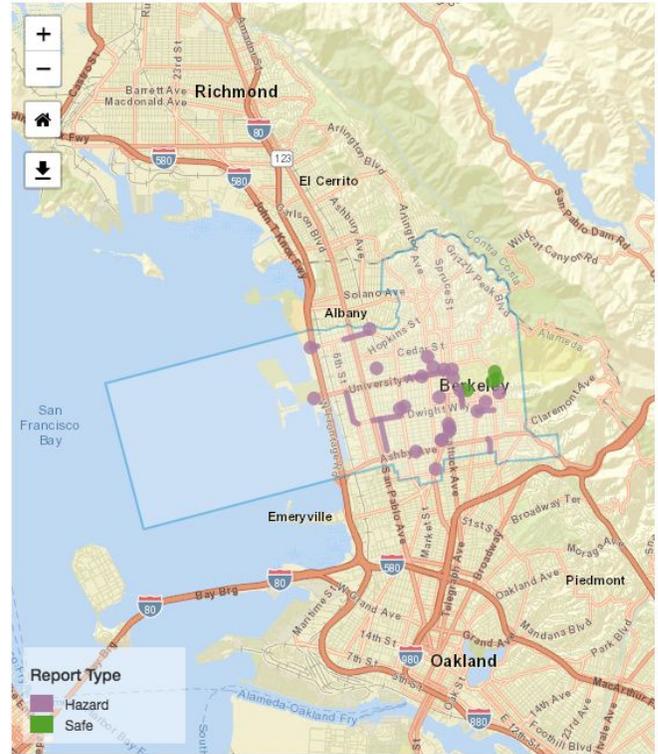


Image 5. The screenshot of the data summary on Street Story web tool for the city of Berkeley

Measurement of Success

Project success is measured by the number of community groups and agencies that use Street Story to collect community input and use the data collected in transportation safety efforts. Project success is also measured by the quality and quantity of input we receive from members of the public. As of May, 2019, thirteen community groups, and agencies, including Bike Bakersfield, Bell Gardens in Los Angeles County, Kern County Department of Public Works, Solano County Transportation Authority, are using Street Story to collect and understand the public's transportation safety experiences. Street Story web tool generated over 5,000 pageviews since its official release in October 2018, and the platform has collected over 550 responses.