

An Analysis of Perceptions of Civic Engagement Technologies in Transportation Planning

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INTRODUCTION

Community engagement is an increasingly important part of transportation planning at local and regional levels. Agencies and advocates are using **civic engagement technologies (CETs)** to bring members of the public into planning processes. Research has shown they can be used to complement traditional forms of community engagement. Few studies have focused on the way agencies, advocates and civic technology experts perceive these tools, and how they fit into the context of traditional transportation data sources and decision making processes.



Street Story outreach at an open streets event in Berkeley, CA.

Purpose

This study uses a case study of the development of a transportation safety CET to examine perceptions of these tools.

The aim was to create a tool that could be:

- Useful to local agencies and advocates working in the transportation safety field; and
- Used by members of the public who may not have access to, or are unaware of, or have difficulties participating in traditional community engagement activities.

LITERATURE REVIEW

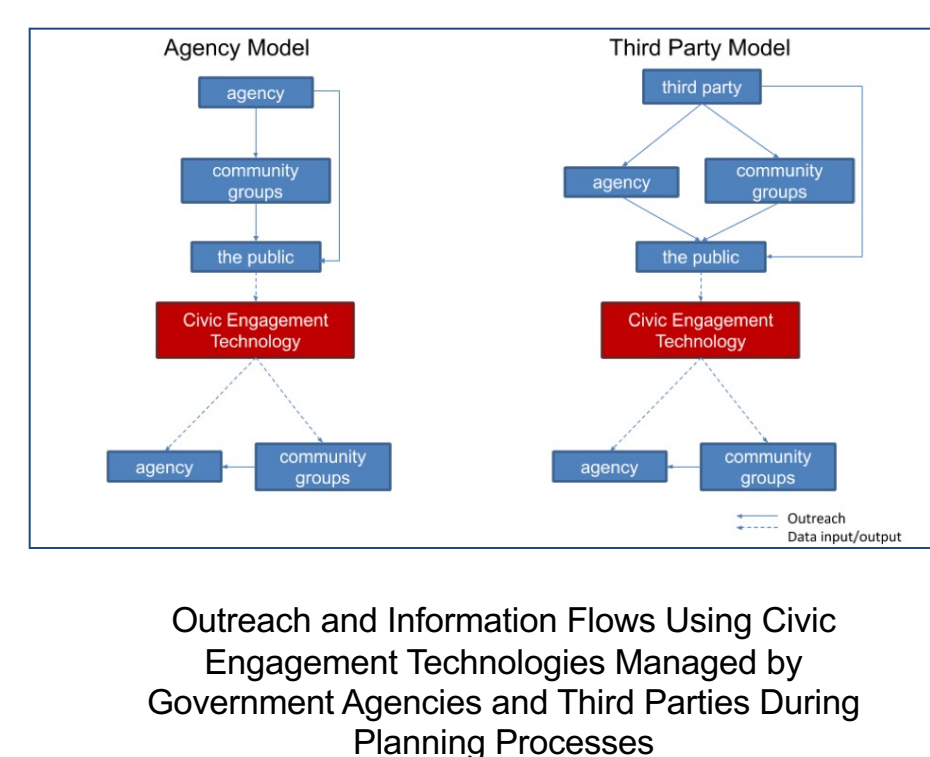
Value of Civic Engagement Technologies (CETs)

- Traditional community engagement techniques such as public meetings, in-person/mail-in surveys, and integrating CBOs as stakeholders can be resource intensive and can favor resource-rich jurisdictions.
- New technologies like CETs can assist in engaging communities with fewer resources and populations that face barriers to participation.
- CETs allow agencies to collect information from significantly sized populations, across large geographic areas, and can be less costly and time intensive.

Civic Engagement Technologies (CETs): “forums created to source, analyze, visualize, and share information, expertise, and solutions” among members of the public, community groups, and government agencies.

CETs and Transportation Planning

- CETs like apps and web platforms have been designed for participants to provide feedback, and to interact directly with transportation agency staff. Uses include¹:
 - Resident-oriented platforms that collect information from residents
 - Resident-oriented platforms that display information from residents
 - Government-oriented platforms that display information from residents, and
 - Government-oriented platforms that display information about resident-developed solutions or feedback

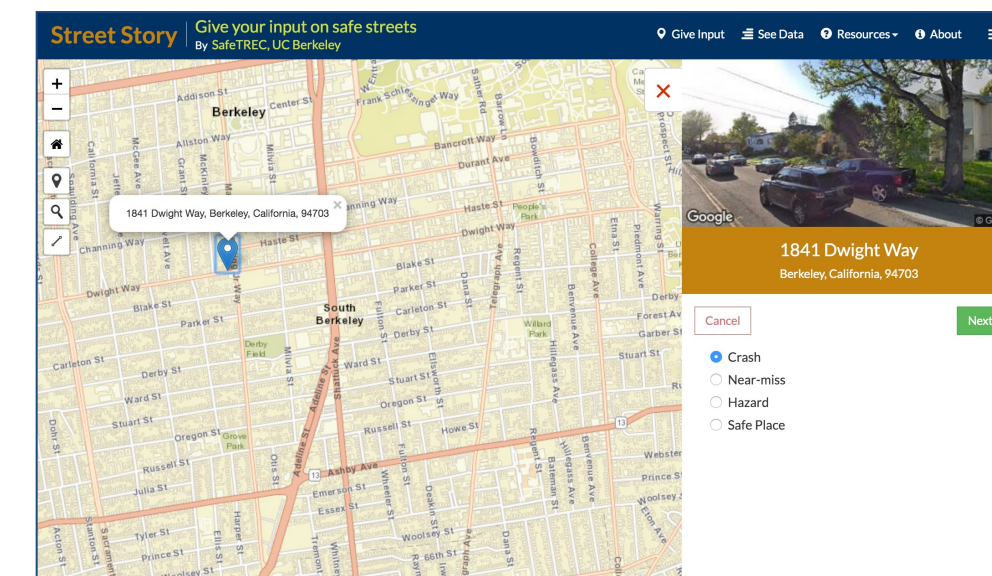


¹Desouza and Bhagwatwar, 2014

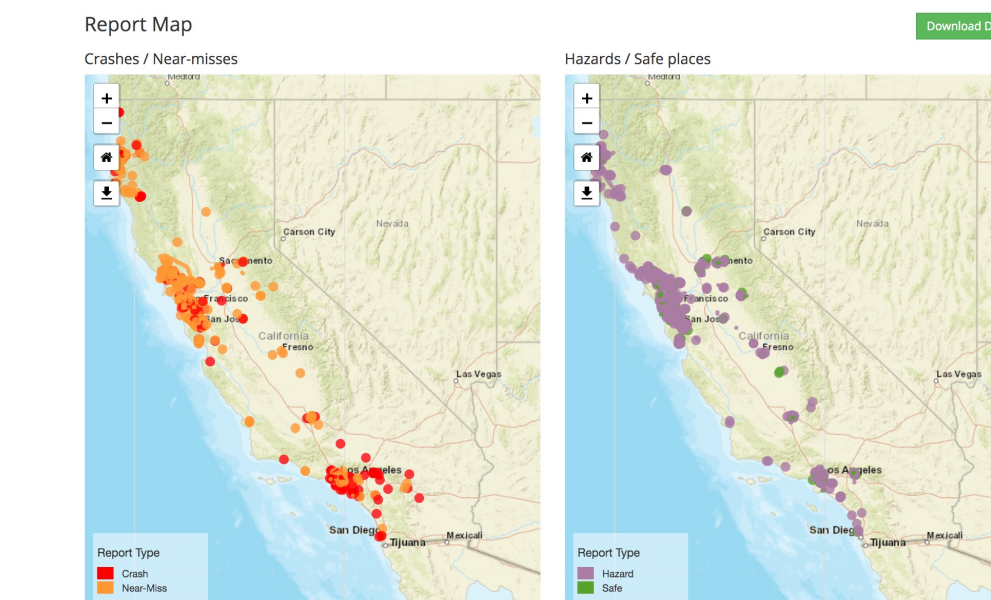
CASE STUDY: STREET STORY

In 2017 the research team received funding from the California Office of Traffic Safety to develop a tool (**Street Story**) that would allow California residents to record perceptions about and experiences with transportation safety.

Interviews were conducted to develop the platform. Prototypes of Street Story were created and tested with residents and agencies across the state.



A screen shot of Street Story's reporting platform.



A screen shot of Street Story platform's data summary for California.



Street Story workshop in Fresno, CA.

Street Story became publicly available in California in October 2018 and is currently being used in 13 communities. Users can access the platform via mobile or computer, or use the paper version.

Street Story provides options to give input on transportation collisions, near-misses, general hazards and safe locations to travel. Information from completed surveys are added to the platform and displayed immediately. Street Story provides a data summary with maps and tables of the reports collected in a specific region.

METHODOLOGY

- The research team interviewed ten individuals from eight transportation agencies, advocacy organizations, and technology companies within California.
- Semi-structured interviews were conducted over a six month period in 2017 and 2018.
- Interviewees were asked about their perspectives about CETs, and which elements they would find useful in the tool being developed.
- The interview questions were open-ended and presented in a semi-structured manner.
- Interviews were conducted with participants in-person or via phone and were 20-30 minutes in duration.
- Interviews were recorded then analyzed using thematic content analysis.
- A SWOT analysis was used to determine content themes.

FINDINGS

A Summary of **Strengths**, **Weaknesses**, **Opportunities** and **Threats** Impacting the Success of Civic Engagement Technologies (CETs).

Internal Factors Impacting CETs Success		External Factors Impacting CETs Success	
Strengths	Weaknesses	Strengths	Weaknesses
<ul style="list-style-type: none">• CETs can collect information that is comparable to existing data sources• CETs can be easy for the public and decision makers to use• CETs can provide information that build decision makers' trust	<ul style="list-style-type: none">• The data collected may not be accurate and verifiable• CETs may not protect the privacy of those participating• Data ownership may not be clear	<ul style="list-style-type: none">• CETs can strengthen planning processes• CETs can encourage agencies to be accountable to the public's concerns• CETs can support existing community engagement efforts	<ul style="list-style-type: none">• The public and organizations may face barriers to accessing CETs• Local agencies may not acknowledge the information collected using CETs

INSIGHTS AND IMPLICATIONS

- CETs can assist agencies and advocates in collecting information from their constituents that can be analyzed and easily incorporated into their work.
- CETs can strengthen transportation planning processes, encourage agency accountability, and support existing community engagement efforts.
- Barriers to access could be addressed by providing multiple language options, designing the tool to be accessible for people with disabilities, and providing a paper version of the tool.
- CETs should be paired with a comprehensive outreach plan and additional resources.
- Additional research is needed to understand decision makers' and public's perspectives on CETs and the influence they have on the planning process and programming.

