



Data Presentation on Transportation Agency Websites: Trends and Best Practices

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The Division of Research, Innovation and System Information (DRISI) within California's Department of Transportation (Caltrans) provides solutions and knowledge that improves

California's transportation system. The Division recently sought to determine whether the data it provides on the agency's website, the way it's organized, and how it's delivered, serve the division's goals and the agency's priorities of sustainability, active transportation, livability, and economic vibrancy. As agencies increasingly look to ensure that data is accessible to the public, it is important to understand how best to present that data through public websites.

The purpose of this research was to:

- Discover the variety of practices for structuring, organizing, and presenting such data currently in use by other transportation-related websites;
- Determine "best practices" that offer the greatest potential to engage, illuminate, and provide practical application for the transportation community; and
- Determine which of these reasonably could be implemented on the Caltrans DRISI (research) library website and identify areas for further exploration and discussion.

Study Methods

In addition to a review of relevant literature, policies, and guidance on open data and website usage and accessibility, this research conducted a review of 143 current websites identified based upon their relevance to DRISI. These included state departments of transportation, California metropolitan and regional transportation planning organizations, University Transportation Centers, and an assortment of other transportation-related agencies and organizations.

Findings

The research identified the following key findings:

1. States have been slow to implement open data. Most state and local transportation agency websites offer little data on their websites, and what they do offer falls far short of the trend toward "open data." Crash data is the most commonly covered topic.
2. System usage data is more common than system inventory data. The breadth of data topics on agency sites is small and often incomplete, with gaps or overlaps in timespans and topic areas.
3. Data discoverability and accessibility vary but are generally poor. Most state sites provide no obvious path from the home page to data, and no agency provides direct access to, or even lists, all data in a single, central location.

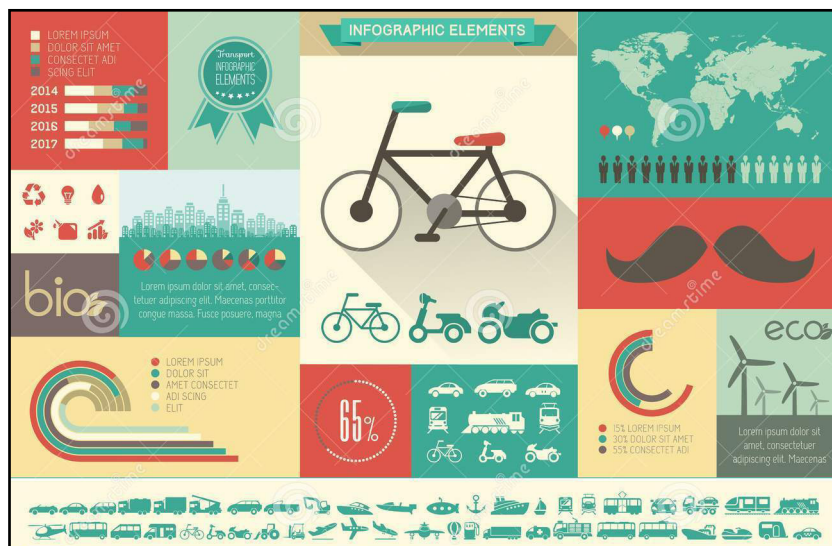
Caltrans has the opportunity to take a leadership role by establishing data policies and practices that will inspire and provide a model for state and local agencies across the country.

4. Data structure, presentation, and appearance vary widely. PDF files, which have serious drawbacks and cannot be considered a “best practice,” are the most commonly used data presentation medium on state sites, but this is fortunately starting to change as more agencies embrace open data.
5. Reusability is standard on federal sites but lacking on state sites. Data on state DOT sites is generally reusable only by investing considerable time and effort in exporting and reformatting text from PDF files. Federal sites, however, are embracing concepts of reusability.
6. Agencies that offer open data are valuable resources. Such websites are both a rich source of ready-to-reuse data on dozens of topics of interest to Caltrans’ customers, and a generous source of guidance and support for agencies just getting started with open data.

Policy Recommendations

Several key recommendations for DRISI, but also relevant to other transportation agencies, were identified. These include:

- Identify your user – who is using the site and what are their needs?
- Expand offerings on the site to add value and meet expectations – increase the availability and usability of data and implement interactive features such as online visualization tools.
- Increase discoverability of the data – centrally organize all data in a user friendly and intuitive manner and ensure that data is easy to access from the homepage.
- Standardize styles and function across all products – standardize not only the look and feel of data products and other resources, but also the structure of individual divisions within the broad Caltrans’ site.
- Ensure reusability – provide data and information in multiple formats to meet multiple needs.



Infographic Elements

About the Authors

Frances Cherman has been responsible for the operation and management of the MTI website since 2010. She also applies her InDesign and editing skills to assist in production of MTI publications. A longtime business consultant, specializing in copywriting for the Web, direct marketing, sales collateral and packaging, she has served some of Silicon Valley’s most successful companies, including Apple, HP, Intuit, LegalZoom, Netflix, Wells Fargo, and many others. Before starting her copywriting business in 1987, she was copy director at Inmac. She holds a BA in English from California State University, Northridge.

To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/project/1501.html

MTI is a University Transportation Center sponsored by the U.S. Department of Transportation’s Office of the Assistant Secretary for Research and Technology and by Caltrans. The Institute is located within San José State University’s Lucas College and Graduate School of Business. **WEBSITE** transweb.sjsu.edu