



TELLING OUR STORIES POWERFULLY, ONE DATA SET AT A TIME

MARA CAMPBELL AND JULIE LORENZ

Highway fatalities decreased and highway condition increased in quality after the Missouri Department of Transportation (DOT) introduced *Tracker*; communicating performance management successes can help engender public support for projects.

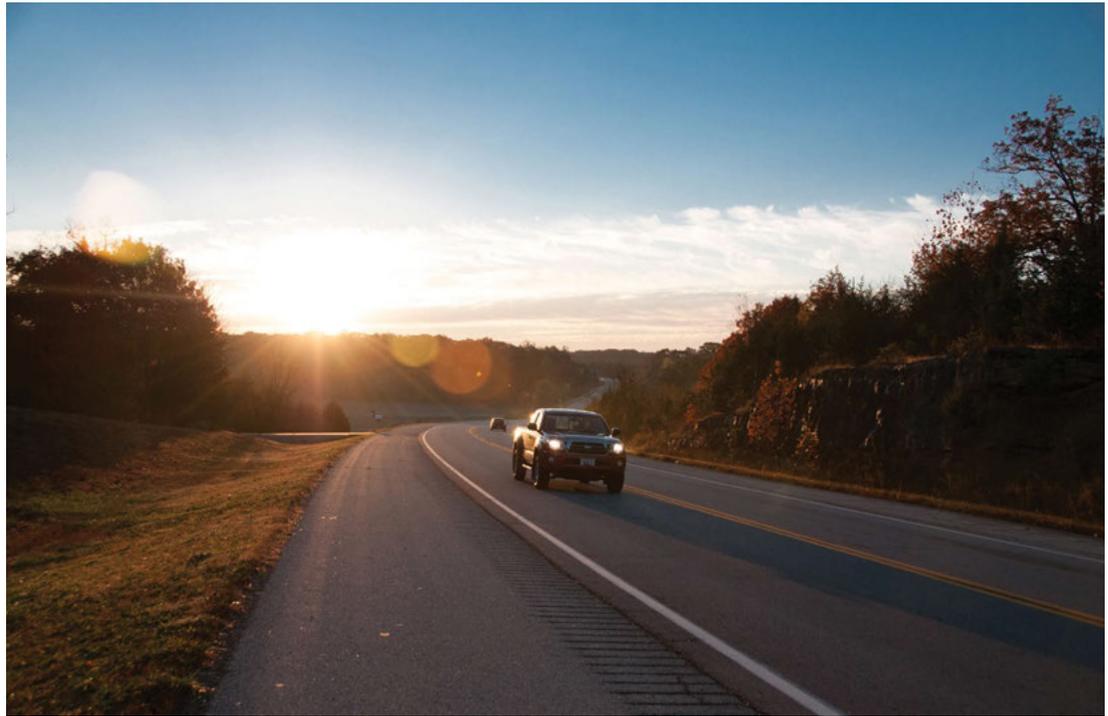


Photo: Missouri DOT

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The information gathered through a performance management system has considerable value on its own. The data gain power, however, when communicated successfully to a specific audience. The stakes for the delivery of this information are higher than ever. Internal decision makers want comprehensive, relevant metrics to drive strategies and decisions. The public, spoiled by *USA Today*-style infographics and quick, succinct Twitter messages, has high expectations for how data should be delivered.

Transportation agencies are finding that clear, relevant communication engenders a sense of responsibility, transparency, and respect among internal and external audiences. Communicating performance management information can help departments build support for decisions, ensure accountability, and tell stories of progress.

Metrics Supporting Strategy

Department managers and decision makers rely on instinct and experience. In a world driven by data, performance management adds another tool to the arsenal. The book and movie *Moneyball* demonstrated that the right metrics could make a contender out of one of the lowest-budget teams in professional baseball. Similarly, with the proper analysis and a strong presentation, performance management data can help decision makers maximize their budgets and their resources.

This information provides a broad and important context for specific decisions. “A decision maker is bombarded every day about how and where to spend money and how to prioritize time and activities,” notes Sam Van Hecke of Cambridge Systematics, Inc., a management and planning consultancy. “Data, properly delivered, can help develop long-range strategic

To build an effective outreach program, transportation agencies can survey how system users prefer to receive data.



PHOTO: CANADIAN PACIFIC, FLICKR

plans and demonstrate how the department has moved the needle in regard to clearly defined goals.”

Ensuring Accountability

“What can’t be measured can’t be managed” is a performance management cliché. But when what is measured is also communicated, an organization grows stronger. When a department’s goals—and the progress toward those goals—are shared among all staff, employees work harder to elevate the team. This beneficial cycle creates an effective program, with the department meeting its defined objectives, as well as an effective organization, with high-performing, professionally satisfied staff.

On-time passenger rail performance emerged as a concern of North Carolina residents, according to the state DOT performance metrics office.

“Most transportation agencies operate under challenging circumstances, whether it’s a funding crisis, a leadership change, or legislative partisanship. This can lead to credibility issues,” observes Daniela Bremmer, Director of Strategic Assessment at Washington State Department of Transportation (DOT). “Embracing performance management is one of the biggest ways to combat that.”

Aligning staff under performance management goals can create a sense of urgency and accountability within the department. Sometimes a culture shift is necessary to ensure that performance management accountability becomes second nature—part of everyday tasks, weekly reviews, and performance evaluations.

Bremmer has seen this kind of culture shift unite an agency. “It’s a ‘one DOT’ mentality. If one person succeeds, everyone succeeds,” she reports. “When a team sets goals and works hard to communicate the goals internally and externally, it creates a shared sense of responsibility.” The enhanced teamwork can increase efficiency and innovative thinking.

Customer-Centric Approach

A clear, compelling, and relevant story can move an audience to accept—and even embrace—new ideas or unfamiliar concepts. Studies at Ohio State University have shown that storytelling is more effective than pure data in swaying beliefs. Both internal and external audiences can be deeply sensitive about the performance, efficiency, and budget of transportation departments. But telling a story that puts the



PHOTO: NORTH CAROLINA DOT

audience at the center can help increase their understanding of—and satisfaction with—the department's efforts.

The first step in finding the best way to talk to an audience is to listen to the audience. Conducting focus groups with internal leaders, citizens, and legislative bodies can provide insight into the information they find relevant. A deeper understanding of how they prefer to receive information can lead to a stronger relationship with each stakeholder group. Building the public trust is vital in efforts that do not have a well-defined performance benefit. The credibility from earning an audience's trust extends to projects with benefits that are more subtle.

North Carolina DOT frequently asks constituents what is most important to them. Even if the topic that emerges is only tangentially related to the agency's work, as long as North Carolina DOT has some influence on the topic, the agency will report on it.

"We heard from our audience that they care about on-time passenger rail performance," reports Ehren

Meister, the agency's director of performance metrics. "Even though that's not our direct responsibility, we feel we have a role as conduit for that information." Meister and his colleagues have found that a customer-centric approach increases the public's interest in and respect for the organization's activities.

The accompanying sidebars offer practical tips about storytelling and data visualization to reach audiences (see below and page 16). Following are descriptions of efforts by various transportation departments across the country that have led the way.

Performance Journalism

The *Gray Notebook* is in its second decade as Washington State DOT's primary report on transportation system performance.¹ The report has become a foundational document for the agency and is regarded as an industry standard.

¹ www.wsdot.wa.gov/Accountability/.



Washington State DOT's quarterly performance report, the *Gray Notebook*, has highlighted improvements in the state transportation system since 2001.

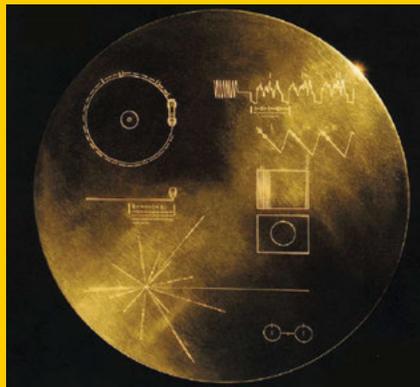
Telling a Story with Information

The people at the animation studio Pixar know about storytelling. Pixar director Andrew Stanton's greatest story commandment is simple: "Make them care." Following are tips to help turn performance management data from mere numbers and words into a compelling story.

1. Make it relevant. Think about what is important to the audience and show them how the information will have an impact on their daily lives. Often what is most vital or interesting to the audience differs from what may be most important to the state department of transportation (DOT).

2. Keep it short. The average attention span has decreased by 33 percent since 2000. A reader of a state DOT's performance information should be able to grasp the core message in 15 seconds and the full story within three minutes. For some audiences, this time may include some basic education.

3. Focus. According to a report prepared for the Federal Highway Administration by Cambridge Systematics, Inc., and Burns & McDonnell, the general public has moderate-to-low interest in transportation issues. To keep an audience's attention, simplify the message and present only the most relevant information. This applies also in communicating with an internal stakeholder, who needs to prioritize a daily inundation of information.



Visual information can be essential to understanding—as on the etched gold aluminum covers of the "Sounds of Earth" records aboard the Voyager probes, the farthest human-made objects from Earth. The etchings offer a pictorial key to playing the record.

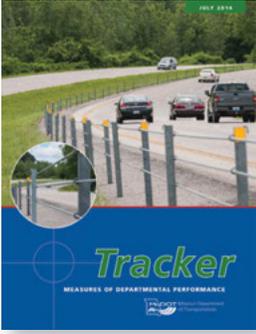
PHOTO: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

4. Take care with numbers. The general audience cares deeply about costs, but numbers indicating budgets or quantities often have little meaning to someone outside the industry. Feeling completely comfortable with the data is important—verification is key. The public's appetite for infographics continues to grow, even for financial and budget information. Infographics have an impressive reach—the space probe *Voyager 1* left the solar system in 2012 equipped with an infographic meant for any intelligent life it may encounter.

5. Have a conversation. Avoid bureaucratic lingo and complicated terminology. Speaking in the customers' language shows that you are listening to them. The American Association of State Highway and Transportation Officials has assembled

guidance on "green light" words to use; these include choices, responsibility, economy, and efficient traffic. On the "red light" list are such words as maintenance, fixing, and public spending.

8. Test it. Read the message aloud. Does it make sense? If the audience is internal, review the product with a colleague. If the audience is external, run the message by a friend or acquaintance from a different industry. If the person does not immediately grasp the message, make improvements and test the message again.



Missouri DOT's quarterly *Tracker* updates performance metrics in each of seven results areas.

Bremmer coined the term “performance journalism” for the practice of communicating performance metrics. She believes that tracking the right information and knowing how to communicate it puts state DOTs in the driver’s seat: “If you have the metrics, you have the ability to shape the narrative instead of having to feel defensive if the media get ahead of the story.”

When Washington State DOT implemented proactive performance management communication, the media coverage shifted in three to six months. “We started reporting a strong message openly and shared our goals and successes—this made a big difference,” Bremmer recalls. The agency never misses an opportunity to report, to fill an agenda spot, or to make a presentation, knowing that bringing the report to life creates an impact.

Dynamic Dashboards

North Carolina DOT introduced performance accountability in the early 2000s and implemented comprehensive scorecards and easy-to-read dashboards in 2007.² Both elements allow website visitors to see how the agency measures up against performance targets.

The public-facing dashboard employs a simple but effective graphic—a fuel gauge—that is familiar and understandable to general audiences. North Carolina DOT also maintains a more complex, internal

² <https://apps.dot.state.nc.us/dot/dashboard/>.

management dashboard—a first for a state agency—which is updated in real time to provide performance data and results by organizational hierarchy.

“Our dashboards are dynamic tools that show internally and externally how the organization is performing,” Meister explains. “For our staff, the tools improve strategic decision-making ability and overall accountability. For our citizens or customers, the dashboards provide information about issues that are relevant to them in an accessible, straightforward way.”

Tracking Progress

Published since 2005, Missouri DOT’s *Tracker* provides performance information to decision makers, partners, and citizens. Missouri DOT organized *Tracker* around seven tangible results, each assigned to a specific leader, to increase accountability.³ Every quarterly edition of *Tracker* updates the metrics, allowing Missouri DOT to gauge progress constantly and to provide relevant information to the general public.

Department leaders credit the comprehensive and transparent presentation of performance information as a contributor to the organization’s customer satisfaction rating of 85 percent. Since the advent of *Tracker*, the number of fatalities on Missouri highways has dropped by 34 percent, and the percentage of major highways in good condition has increased by 122 percent.

³ www.modot.org/about/Tracker.htm.

Painting a Picture with Data

Some information cannot be explained without visual assistance. The use of visual information has increased by 9,900 percent on the Internet since 2007 and by 142 percent in newspapers between 1985 and 1994. The following tips can help ensure that infographics make the most of the available space:

1. Let the data drive. Instead of thinking up a graphic idea and stuffing the data into it, start with the information. Dig in and listen to the story the numbers are telling. Most of the time, a graphic should convey one big idea well instead of an agglomeration of data.

2. Identify the emotion. According to Gareth Cook, the Pulitzer Prize-winning author of *The Best American Infographics*, the keys to successful data visualization are intellectual power, aesthetic sophistication, and emotional impact. Numbers can tell a story. Connecting emotionally with the audience extends their attention span and increases their retention of the message.

3. Think about the format. Will the graphic be printed in a paper report or will it be an electronic PDF file? What is the potential for interactivity? Will the graphic be viewed on a smart

phone? The answers to these questions will define the screen size for the design. Graphics meant to be viewed on a computer or tablet can take up more vertical space than most other formats.

4. Keep it simple. To enhance readability, limit the design to two type fonts. Develop multiple hierarchy levels of type sizes and weights that allow the reader to grasp the message at first glance but that also encourage a deeper look at more information. Create some white space. Tell a story—infographic headlines, subheads, and copy should be clear and compelling.

5. Use color when possible. Researchers from Xerox have found that readers are 80 percent more willing to read an infographic presented in color. Color can increase a reader’s attention span and recall by 82 percent. Infographic trends are fleeting, but bar charts are always effective, as are the colors red, blue, and grey.

6. Be accurate. A well-made infographic can guide a reader in a specific direction. But infographics also have the power to misinform. Maintain credibility. Do not omit necessary data to serve the story. Ensure that the data are recent and accurate, and cite the sources.



Camera crews capture footage of the pontoon repair site, part of Washington State DOT's SR-520 bridge replacement project; the agency has worked to keep open communication and to build credibility with the media, cultivating "performance journalism."

Informing Taxpayers

People are always interested in how their investment dollars are being spent. Colorado DOT answers that question directly with a website devoted to the topic—Your CDOT Dollar.⁴ The site delivers information about safety, mobility, road quality, bridges, and tunnels, offering a report card and trending information for each area.⁵

"This is what taxpayers want to know," Scott Richrath, Chief Financial Officer in the Division of Accounting and Finance, explains. "They want to feel that their investment is being used wisely." To that end, the site features an innovative calculator that allows visitors to estimate the taxes and fees they pay to Colorado DOT and see how those dollars are used.

The website and other efforts have earned kudos from the governor, who has commended Colorado DOT as the state's leading agency for performance management: "We're managing a larger cash budget than ever, so our responsibility to communicate our goals and progress is larger too. It's our job to gather reams of data and then transform them to help us make informed and meaningful decisions."

Just Do it

There is no perfect formula for communicating performance management information. The effort is

always evolving—and should be—as departments innovate and improve processes. Bremmer advises agencies simply to get started: "Start small if you need to. Don't wait for everything to be perfect, because it never will be." She adds, "Don't get paralyzed by data analysis. You will soon figure it out."

A good approach is to spend as much time in figuring out the best way to communicate the data as in gathering the data. If the audience does not read the information or does not understand it, the effort is wasted.

"The audience—whether it's your boss or your neighbor—wants localized, relevant information," Van Hecke observes. "It's important to provide a customer-centric experience that guides your audience through the information in the way you want them to see it."

Budgets and costs for Colorado DOT projects, such as rockfall mitigation in Georgetown Hill in 2011, are detailed on the Your CDOT Dollar website.



⁴ <http://dtdapps.coloradodot.info/Otis/YCD>.

⁵ The American Society of Civil Engineers publishes a comprehensive report card on the condition of America's infrastructure (www.infrastructurereportcard.org/), but the approach has not yet gained traction in the transportation industry, even though the general public understands the message instantly.