

# Connected Vehicle Technology Challenge

## Communications Assessment

SEPTEMBER 2011

**John A. Volpe National Transportation Systems Center**



U.S. Department of Transportation  
Research and Innovative Technology  
Administration

## Executive Summary

In January 2011, the Intelligent Transportation Systems Joint Program Office (ITS JPO) launched a competition that called on the public to identify creative uses for dedicated short-range communications (DSRC) technology. The Connected Vehicle Technology Challenge (CVTC) was the first competition of its kind hosted by ITS JPO. This report evaluates the CVTC communications campaign and recommends best practices for implementing successful outreach campaigns for future challenge competitions.

### Key Observations:

- **Identify likely innovators and problem solvers first, analyze their habits, and tailor outreach efforts and messaging based on their attributes and interests.** A common misconception about public challenges is that anyone can be a problem solver. In practice, problem solvers must have both the technical expertise and an interest in addressing the problem. Challenge messaging must resonate with their interests, appeal to their motivations, and be delivered through trusted channels. The most likely problem solvers are probably not searching for your challenge. A great element of open challenges is that you don't have to know the answer, but you must be able to reach and inspire those who might.
- **Previously successful outreach tactics are not sufficient for new audiences.** Organizations rely on challenges as low-cost strategies to generate ideas about problems that haven't been solved through outreach through current networks. A fundamental tenet of implementing a successful challenge is that you are reaching beyond your existing network to find unique solutions. Although it may be easy to rely on trusted partnerships and outreach strategies used in the past, they will not be sufficient for reaching fresh and new innovators and problem solvers. As Phase I CVTC communications initiatives relied heavily on messages from high-profile Department of Transportation (DOT) professionals and government transportation agencies, our assessment suggests that news of the challenge didn't reach many problem solvers outside of the transportation industry.
- **Challenges may be low-cost, but building networks to reach solvers can be resource intensive.** Challenges have been widely adopted by both the public and private sector because they offer a dual benefit: they not only generate valuable potential solutions to a business or public problem, but they also elevate the reputation of the host organization while introducing the host to an entirely new and different network of stakeholders. However, building solver relationships isn't easy, and crowdsourcing can only be successful through developing and maintaining ongoing relationships with "the crowd" and "crowd influencers." Identifying touch-points and monitoring numerous online conversations is time-consuming but a valuable approach for building networks. Communicating inconsistently or infrequently with supporters, solvers, fans, and the media during and after the challenge can jeopardize the host's reputation and ability to launch successful challenges in the future.
- **A firm understanding of the agency's communications policies, tools, and approval channels during campaign planning can help ensure timely and efficient execution.** While the CVTC was not a collaborative challenge, most public competitions today are driven by the community's exchange of ideas and the building of collective intelligence. In other words, challenges are social in nature. Therefore, promoting challenges is often facilitated via dialogs with potential solvers and/or "the crowd." However, facilitating an online dialog with target audience members requires a fundamental policy change in communications for most public agencies, ITS JPO included. As part of the definition and planning for each challenge, challenge planning staff should seek input from social media policymakers and administrators to identify the best way to facilitate proactive online communications via existing social media tools, while adhering to important organization policies.

## Connected Vehicle Technology Challenge Overview

Hosted by ITS JPO, the CVTC was an exploratory research initiative to identify innovative and realistic ways to use DSRC technology to improve transportation safety, mobility, and environmental benefits.

Interested participants submitted written ideas for new ITS technologies. To maximize participation, the guidelines for the challenge were minimal. Six finalists received travel and registration to the 2011 ITS World Congress and the opportunity to present their concepts during a special session.

The CVTC was facilitated through [Challenge.gov](http://Challenge.gov), the Federal Government's official host for agency challenges. [Challenge.gov](http://Challenge.gov) provided the framework for administering the CVTC, including hosting the website, online discussions forum, and blog. [Challenge.gov](http://Challenge.gov) also facilitated submissions and administered the public voting portion of the community's judging.

### Communications Strategy: Phase I

January 25-March 25, 2011

#### TARGET AUDIENCES

- Transportation professionals
- Inventors/"tinkerers"
- Engineers
- Computer scientists/developers
- University students, professors, and researchers

#### PHASE I GOALS

- Maximize exposure for CVTC optimum submissions by developers, inventors, transportation enthusiasts, students, and other types of innovators.
- Increase a general awareness of ITS JPO and its research programs.
- Engage people who have capable expertise in relevant fields with a low barrier of entry for participation.

#### PHASE I STRATEGY

To effectively promote the CVTC, the communications team branded the challenge by developing a logo and slogan that served as a backdrop for all campaign communications.

Phase I relied heavily on traditional media relations and cooperation from select ITS JPO transportation partners to promote the CVTC via their networks. The Research and Innovative Technology Administration (RITA) and ITS JPO websites were also leveraged to heighten awareness among transportation professionals.

The Challenge was launched by RITA Administrator Peter Appel at the *State of ITS Industry* presentation at the Transportation Research Board (TRB) Annual Meeting on January 25, 2011, to an audience of more than 200 transportation stakeholders. See Appendix A for a complete list of campaign tactics and relevant outcomes.

## SITUATION ANALYSIS

After generating significant media buzz during the campaign launch and in the subsequent three weeks, interest in the CVTC and website traffic began to wane. Upon a cursory review of the submissions received by early March, the CVTC team determined that a second-wave communications campaign was required to increase the number and quality of submissions.

Phase I efforts to promote the CVTC were primarily conducted through government transportation agencies and partners. Efforts to engage potential target audiences beyond transportation professionals, and to connect with all target audiences through viral media, had been largely unexplored. Despite limited time and resources to implement a Phase II communications campaign, new outreach tactics were generated to most effectively increase quality submissions. In developing these turnkey tactics, the following analysis was conducted:

### Constraints:

- **The technical nature of the CVTC.** The most likely CVTC solvers require a basic understanding of complicated DSRC technologies. Thus, quality submissions require a significant time investment on the part of the solvers.
- **Lack of significant monetary incentive.** The CVTC targets educated solvers. These innovators are generally more protective of intellectual property, or seek challenges that offer significant monetary compensation.
- **Limited time.** Phase II of the communications plan had to be developed by mid-March and approved and implemented by March 26, 2011. Thus, the potential to implement a range of outreach tactics was time-constrained. The time limitations were compounded by the lengthy approval processes to disseminate official ITS JPO CVTC messages.
- **RITA policies regarding social media outreach.** Importantly, our limited insight into the profile of submitters suggested that the problems solvers we most desired—those who are technologically-savvy enough to understand DSRC—are probably not seeking challenges or connected to media that advertise such opportunities. As a result, it became evident that it is essential to identify and reach these problem solvers via existing and familiar groups, associations, and social networking sites (LinkedIn, Facebook). However, RITA social media policy requires a business case justification for implementing new social media sites, which wasn't feasible given the limited time remaining in the submission period.

## GOALS FOR A PHASE II COMMUNICATIONS STRATEGY

- Introduce the CVTC to targeted problem solver communities
- Generate at least six additional quality submissions

## PHASE II STRATEGY

With these constraints and goals in mind, Phase II efforts focused on reaching thought leaders within the likeliest solver communities and providing them with tools and messaging to easily spread the word about the CVTC within their communities using online and traditional networks. Academic audiences and engineers were identified as two audiences that had not been effectively reached by Phase I efforts. For Phase II, the communications team:

- Revised content on the CVTC website and retooled campaign messaging to better align audience motivators and CVTC benefits.

- Developed a library of CVTC promotional materials to help thought leaders and CVTC stakeholders promote the CVTC to their networks.
- Identified new channels for disseminating the messages and contacted thought leaders personally (via phone or email) to request their assistance in spreading the word. See Appendix A for a complete list of campaign tactics and relevant outcomes.

One of the primary shortcomings of Phase I strategies was that the campaign messaging did not align with audience motivations. The content was well written but too long, which magnified the technical nature of the CVTC and dissuaded potential solvers from engaging. Although our team was limited in the ways we could alter the message, we streamlined CVTC language for Phase II efforts into clearer and more succinct sound bites appropriate for engaging the reader. The new messaging highlighted the benefits for CVTC finalists.

We also added prize opportunities to engage solvers who are motivated by innovation and recognition rather than simply exposure and notoriety, which the ITS World Congress presentations offered. Additional prize opportunities included:

- Test-driving vehicle prototypes equipped with DSRC technologies
- Being recognized as part of the *Best of ITS* awards ceremony at the ITS World Congress

The additional prizes were not only intended to further motivate solvers, but also provide a news item to revive CVTC communications.

## Results

Over the 97-day submission period, the CVTC generated 78 quality submissions, and attracted 213 supporters and 299 Facebook fans. These metrics indicate a successful first challenge competition, particularly given the CVTC's technical nature and small monetary prize. As of May 2, 2011, the CVTC was listed as the 8<sup>th</sup> (of 87) most popular challenge on [Challenge.gov](http://Challenge.gov) in terms of supporters. Statistics are provided in the table below.

Metric	Phase I (60 days)	Phase II (37 days)	Total
# of submissions	17	61	78
# of supporters	Not Available	213	213
# of Facebook Likes (implemented during Phase II)	Not available	299	299
# of media articles (including online blogs)	23	4	27
# of LinkedIn discussions (implemented during Phase II)		16 (~76,000 impressions)	16
# of website visits (web stats were not available between 1/25 and 2/6)	3,034	5,247	8,281

In addition to the raw results above, we observed some trends in the response to our campaign:

- **Social networking sites drove traffic to the website.**

While most website visitors arrived at the site by entering the CVTC URL, Facebook and LinkedIn were among the top five most popular referral sites, demonstrating the importance of social media outreach. Leveraging social networking sites earlier may have further increased website visits.

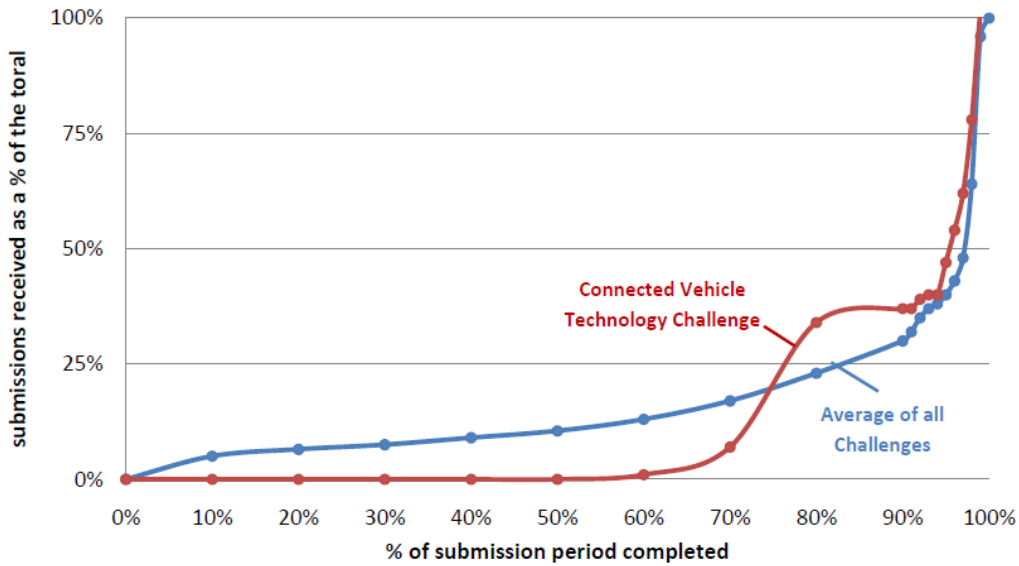
Referral Source/Medium	Visits	Percent
Direct/none	4154	50.2%
<a href="#">Challenge.gov</a> / referral	1341	16.2%
<a href="#">Facebook.com</a> / referral	813	9.8%
<a href="#">Google.com</a> / organic	521	6.3%
<a href="#">its.dot.gov</a> / referral	519	6.3%
<a href="#">LinkedIn.com</a> / referral	115	1.4%
<a href="#">Volpe.dot.gov</a> / referral	60	0.7%
<a href="#">Intellidrivetaskforce.itsa.wikispaces.net</a> / referral	58	0.7%
<a href="#">rita.dot.gov</a> / referral	58	0.7%
<a href="#">challengepost.com</a> / referral	38	0.5%

- **Most CVTC solvers waited until the last 48 hours to submit ideas.**

CVTC submissions followed the same trend as submissions for many of the other [Challenge.gov](#) competitions. This trend is common with idea-based competitions, as solvers typically want to protect their unique concepts and discourage copycat submissions.

Submissions Received In The	CVTC	All Challenges
Last 48 hours of competition	51% (40)	50%
Last 24 hours of competition	42% (33)	38%

## When do people enter a challenge?

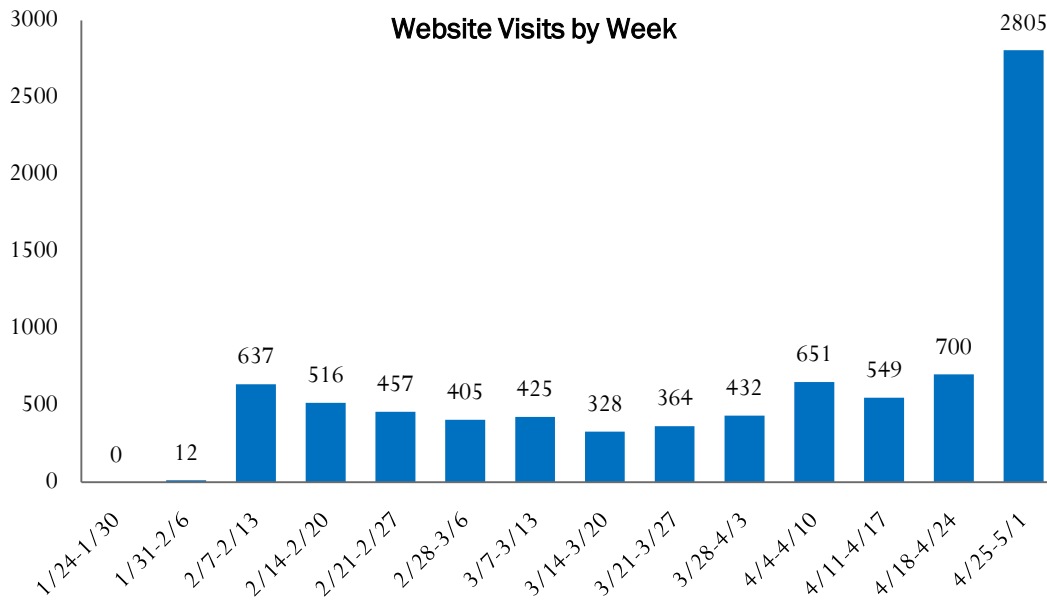


- Website traffic may be the best indicator of interest in the challenge.**  
 Website visits are a better measure of outreach effectiveness than submissions since most solvers wait until the last 48 hours of a challenge to submit ideas. When communications with target audiences waned between mid-February and mid-March, website traffic also slowed, highlighting the importance of scheduling a regular series of communications to retain a high level of engagement.

### Outreach Efforts, Website Visits, & Submissions by Week

	Dates	Outreach Activity	# Website Visits	# Submissions
Week 1	1/24-1/30	High	n/a*	3
Week 2	1/31-2/6	High	n/a*	4
Week 3	2/7-2/13	Medium	637	2
Week 4	2/14-2/20	Medium	516	1
Week 5	2/21-2/27	Low	457	1
Week 6	2/28-3/6	Low	405	3
Week 7	3/7-3/13	Low	425	1
Week 8	3/14-3/20	Low	328	2
Week 9	3/21-3/27	Low	364	0
Week 10	3/28-4/3	High	432	0
Week 11	4/4-4/10	High	651	4
Week 12	4/11-4/17	Medium	549	4
Week 13	4/18-4/24	Low	700	5
Week 14	4/25-5/1	Low	2805	48

\*Website statistics were compiled beginning February 6.



## Lessons Learned

We recommend the following steps to maximize the success of future challenge communications campaigns.

### STRATEGY

- **Conduct an analysis of potential problem solvers** before finalizing challenge parameters and prizes to identify and target motivations. Draft messages, select communications media outlets, and engage thought leaders and influencers based on the most likely profile of the type of problem solvers to be targeted.
- **Leverage partners or co-sponsors that share the overall goal**, but offer added value in terms of access to an audience or prize.
- **Identify the processes and personnel involved in approving challenge communications**, document the approval timeline, and plan outreach accordingly. Due to the viral and collaborative nature of crowdsourcing, challenge competitions require ongoing online conversations with solvers via their current networks. This may require a shift in social media or communications policy, and by addressing these policy barriers early in the planning process, challenge sponsors can work collaboratively with communications personnel to identify effective strategies that meet everyone's requirements.
- **Dedicate appropriate resources to the challenge.** Crowdsourcing is effective in building organizational awareness and generating numerous ideas at a low cost, but it requires significant human resources to access solver networks, moderate discussions, and keep challenge enthusiasm high throughout the campaign.
- **Seek best practices from agencies hosting challenges with similar constraints.** Other agencies may have developed creative ways to address low-monetary-value prizes and a need for highly technical solvers.



## AUDIENCES

- **Engage internal audiences.** Given the technical nature of the CVTC, we found that that the ITS JPO, RITA employees, and modal partners have access to some of the best and most targeted networks. Provide these internal audiences with easily accessible messages and resources to promote the challenge via personal and professional networks.
- **Understand that the person who delivers the message is as important as the message itself.** Identify and form personal connections with thought leaders within each potential solver network first. Connections with thought leaders turn them into ambassadors for the cause; it is they who are best suited to identify when and how to propagate the message through their networks. Key CVTC stakeholders who helped generate success were:
  - Preeminent professors publishing on DSRC technology.
  - Chapter-level leaders of professional organizations and student chapters of these organizations, including the Institute of Electrical and Electronics Engineers (IEEE), Institute of Transportation Engineers (ITE), Women’s Transportation Society (WTS), Tau Beta Pi (TBP), Eta Kappa Nu (HKN), and the Society of Women Engineers (SWE).
  - Communications personnel at peer transportation agencies (AASHTO, FHWA, etc.). While communications personnel may need to get authorization to propagate a message, these contacts are knowledgeable about the range of their possible outreach vehicles, and can ensure that the message is circulated widely and appropriately.
  - ITS JPO, RITA employees, and modal partners: While not eligible to participate in the CVTC, these employees are key to spreading the word within targeted networks of technical communities.

## MESSAGES

- **Tailor the message content and medium to resonate with the target audience.** For example, students may require more trendy and fresh language than professional transportation societies whose members already understand DSRC.
- **Craft clear and concise message content** to engage the audience and then redirect them to the website for complete details—the goal of the message is to direct people to the website; the goal of the website is to motivate people to enter the challenge. Use simple and clear language and mention the challenge prizes early. Use real-world examples of how DSRC technologies are being applied. Avoid long streams of text, and if they’re absolutely necessary, relegate them to the last parts of the website. The messaging should serve to inspire.
- **Clarify what action you want the recipient to take as a result of the interaction.** Make the “ask” within the first three sentences of a written request, and supply the tools to easily comply with it. Do you want the recipient to enter the challenge, share a flyer, or “Like” the challenge via Facebook?
- **Tell partners how complying with your request will benefit them.** For instance:
  - *Internal DOT staff:* The challenge is likely to provide new and fresh ideas to support their research efforts.
  - *Professors:* The challenge can be part of a lesson plan or extra credit assignment.
  - *Transportation Organizations:* Crowdsourcing competitions like the CVTC can be a catalyst for public adoption of technologies that will improve transportation efficiency and safety, which is why it is important that we promote the challenge widely.
- **Ensure that all hyperlinks in outreach materials direct traffic directly to the challenge site.**

## TIMING

- **Prioritize and calendar campaign tactics** across the span of the submission period to ensure consistent coverage and ability to generate a continuous level of awareness and interest in the challenge.
- **Consider the time constraints of the target audience.** For example:
  - *Universities:* Connecting with university students and professors early in the semester when energy is high is critical. Early outreach will provide professors with ample time to integrate the challenge into their lesson plans and help avoid delays in information distribution due to spring break or final exams.
  - *Professional associations:* Because professional organizations only meet monthly or quarterly, early outreach is recommended so that announcements can be included in publications and meetings.

## MEDIA & RESOURCES

- **Reach target audiences where they live** (professional associations, conferences, online groups, etc.). This means delivering information about the challenge to inboxes and social media sites. You can't announce a challenge and wait for solvers to come to you. Most people are familiar with Facebook or LinkedIn functionality, and they use these networks to manage multiple professional and personal conversations, so having the ability to interact within these environments is critical. By way of counterexample: While the [Challenge.gov](https://www.challenge.gov) "supporters" feature allows people to start conversations and support challenges, it requires interested parties to create a log-in and monitor another online environment, which creates barriers to participation. Simply stated, if it isn't easy, they won't do it.
- **Make it simple to promote and access information on the challenge.** Stakeholders and solver influencers are not necessarily communications experts. Respect their time and supply the tools to fulfill your request.
  - Prior to launching the challenge, create a promotional toolkit for audience influencers. The toolkit should include the challenge logo, descriptions of various lengths, sample social media posts, sample drop-in articles, flyers, web widgets, and presentation slides.
  - Post resources to a website where they can be accessed by stakeholders and the media. There should be one location for all information about the challenge.
- **Capitalize on events.** If employees or other stakeholders are speaking at events that engage the target audience, investigate ways to promote the challenge via announcement boards, literature tables, bag stuffers, and presentation announcements.
- **Develop a creative video to motivate submissions.** Crowdsourcing competitions are viral and spark the creativity of those who learn about it. A video can be a visceral way to generate interest as long as the video is more than an interview with an agency representative. A video should also include links directly to the submission process, making it a simple step to capture the creativity in the moment.

## TECHNOLOGY

- **Understand the functional levels of the [Challenge.gov](https://www.challenge.gov) platform.** The [Challenge.gov](https://www.challenge.gov) platform offers a host of benefits of which the most significant is its availability to Federal agencies at a low cost through the General Service Administration (GSA). It also serves as the official portal for all Federal

government challenges. The [.gov](#) URL reinforces the credibility and legitimacy of a challenge. However, there are different levels of [Challenge.gov](#) functionality and support, and challenge hosts should familiarize themselves with these levels, and the processes and costs associated with customizing the services or platform. For example, [Challenge.gov](#) has the technical capability to create a customized website (such as <http://www.appsforhealthykids.com/>). Customized sites can aid in challenge branding and offer additional functionality such as the ability to host downloadable content. During the CVTC, [Challenge.gov](#) employees were incredibly responsive to requests for analytics data and site customization. In some cases, the CVTC team's requests actually prompted [Challenge.gov](#) personnel to develop more robust uses and metrics for the platform, ultimately benefiting all [Challenge.gov](#) clients.

- **Test the functionality of challenge site features early to ensure that messaging is accurate.** The messaging that first appeared on Facebook when someone “Liked” the challenge promoted [Challenge.gov](#) as a resource but not the CVTC specifically. (When we reported the issue to the [Challenge.gov](#) team, they fixed it immediately.) When working with a challenge administrator, don't just ask whether certain features exist; find out how they work.
- **Consider using free social media management tools to schedule messages.** Social media dashboard tools such as [HootSuite.com](#) will enable you to schedule messages and conveniently post to all of your social media accounts at the same time.

## EVALUATION

- **Require submitters to identify how they heard about the challenge** as part of the submission process so that you can identify successful outreach tactics.
- **Track metrics, submission dates, and supporters throughout the course of the challenge** to identify correlations between outreach and activity. By default, [Challenge.gov](#) currently offers limited site metrics (for example, there is not an automated tracking tool to monitor when each supporter joined), so plan methods for tracking specific campaign efforts with custom URLs, web alerts, and other monitoring services. For example, we used the redirection and tracking service [bit.ly](#) to supplement the tracking capabilities built into [Challenge.gov](#).

## Ideas for Future Challenges

We believe the following strategies would have enhanced the CVTC and would be a worthwhile part of future challenge outreach strategies due to the dynamics of crowdsourcing competitions.

**Video:** Most successful public competitions rely on inspirational videos to motivate solvers and channel their creative spirit. Given that YouTube is the second most-popular Internet search engine, creating a brief (90-seconds or less) and targeted series of challenge videos and posting them to YouTube would help ensure the rapid dissemination of challenge messages through solver networks. Examples:

- [Toyota 100 Cars for Good Video](http://www.facebook.com/toyota?sk=app_192385320793841) [[http://www.facebook.com/toyota?sk=app\\_192385320793841](http://www.facebook.com/toyota?sk=app_192385320793841)]
- [GOOD Magazines Call for Entries](http://www.youtube.com/watch?v=KcSQZINXyKo) [<http://www.youtube.com/watch?v=KcSQZINXyKo>]

**Website:** [Challenge.gov](#) offers a Premium level that not only provides for challenge administration and public voting, but also the development of a customized site. While not required, developing a custom challenge site adds a level of professionalism and branding that goes beyond a logo and slogan. A custom-designed website offers the ability to host downloadable promotional content. As a result, you can have a home for the challenge without sending audiences to different locations to find challenge-related information. Examples:

- [City of New York's Software Application Challenge](http://nycbigapps.com/) [http://nycbigapps.com/ ]
- [Applications for Health Kids Competition](http://www.appsforhealthykids.com/) [http://www.appsforhealthykids.com/]
- [Toyota Ideas for Good Competition](http://www.toyota.com/ideas-for-good) [http://www.toyota.com/ideas-for-good]

**Facebook page:** Hosting a successful crowdsourcing competition is ultimately about building an online community and fostering the free exchange of ideas. With more than 500 million users worldwide, Facebook is the most popular social networking site. By creating a free Facebook page, you can easily push messages to audience members who have already demonstrated an interest and allow for a dialog with interested parties. While the Challenge.gov service enables fans to “Like” the CVTC, this functionality simply added a one-time message to the users’ Facebook account, but did not create a process by which we could provide a steady stream of updates.

The following issues should be addressed when deciding whether a Facebook page would benefit the challenge.

- Traffic will be split between the Facebook page and the challenge website.
- Is there enough content to keep the Facebook presence fresh?
- Do you have a resource that can monitor and respond to Facebook posts on a timely basis?
- How will you moderate and respond to negative posts?

You can also use an existing organizational Facebook account to host and foster challenge conversations, but organizational policy will have to allow for a series of posts, and the Facebook administrator will have to be well versed in responding to challenge inquires.

## Conclusion

While all challenges require careful planning, dedicated resources, and the right technology to ensure successful implementation, it is critical to understand how the nature of the challenge will influence the outreach campaign. Due to the very technical nature of the CVTC, it became increasingly critical to access specific networks of engineering and transportation innovators and this more precise level of audience targeting paid off in additional website traffic and submissions. This report recommends numerous possible outreach strategies, but in general, the most successful will be those that best target solver communities within an industry domain.

## Appendices

Appendix A: Outreach Efforts and Result

Appendix B: Sample Coverage

## Appendix A: Outreach Efforts and Results

Tactic	Type	Target Audience	Date	Results	Recommendations
<p><b>TRB announcement:</b> The Connected Vehicle Technology Challenge was officially announced at the <i>State of the ITS Industry</i> presentation at the TRB Annual Conference. Posters and flyers about the CVTC were available at ITS JPO booth.</p>	Event	Transportation Professionals	1/25	Excellent venue for launch. Exposure to 200+ transportation stakeholders.	Collect email addresses from event participants who are willing to promote the challenge. Follow-up with a link to an electronic toolkit with outreach resources.
<p><b>News release to inventors'/technology media:</b> ITS JPO released a media advisory to 47 online and print publications that cater to inventors and technology enthusiasts. The office identified potential partnerships with media who could provide free ad space. Wired Magazine, Computer World, Inventors Digest, blog posts on Open Source Initiative, Open source software institute, UTCs, IEEE chapters at universities, find professional associations related to this world, ITE Student chapters, Young Business Leaders, etc.</p>	Internet	Transportation Professionals	1/25	Generated approximately 30 articles in online media and blogs. Relationships with media to provide free advertising were not executed.	Disseminate the release to a broader audience of media outlets, including the automotive sections of major newspapers. Follow-up with personnel at high-profile media that may have special interest in the topic (i.e. CNBC's Behind the Wheel with Phil LeBeau, National Public Radio's Car Talk, etc.)
<p><b>Posting on Challenge.gov:</b> The CVTC was facilitated via Challenge.gov (the Federal government's official site for challenges). Challenge.gov provided functionality for individuals to support the CVTC, Like the CVTC via Facebook, or submit CVTC Twitter posts.</p>	Internet	ALL	1/25	78 submissions. 213 supporters. 299 Facebook likes, 20 tweets (as of May 2).	Website content was well-written and contained extensive information, but was lengthy, and may have dissuaded potential solvers. Keep message succinct and address audience motivators in the first few sentences. Optimize at least one of the logo graphics for Facebook posts.

## Appendix A: Outreach Efforts and Results

Tactic	Type	Target Audience	Date	Results	Recommendations
<b>Message on Fastlane Blog:</b> A blog post from RITA Administrator Peter Appel appeared on Secretary LaHood's Fast Lane Blog encouraging U.S. DOT key stakeholders and those persons interested in U.S. DOT's mission to participate in the CVTC.	Internet	U.S. DOT Stakeholders	1/25	Generated 31 website visits. 1 comment on blog. Also posted to Ray LaHood's Facebook page (~6,500 followers) with 2 negative comments and 6 likes.	
<b>Coordination with ITSA, ITE, AASHTO:</b> Through contractual agreements with ITS America, ITE, and AASHTO, ITS JPO used existing communications mediums to promote the CVTC to each of these groups.	Websites/ Newsletters	Transportation Professionals	Ongoing	IEEE Spectrum newsletter 1/11. AASHTO Journal article 2/11.	Connect with key stakeholders within partner organizations and develop a series of messages to ensure engagement remains high throughout the challenge timeline. Leverage stakeholder social media networks.
<b>Stakeholder note from RITA Administrator Peter Appel:</b> ITS JPO drafted a special letter from RITA Administrator Peter Appel that invited applications for the CVTC. A letter from the Administrator is a rarely used communications tool designed to pique the attention of the ITS community.	Electronic Post	Transportation Researchers/ Professionals	2/8		Links in this message pointed to the Challenge.gov site, but not specifically the CVTC. Ensure all communications link to the specific challenge website and make pertinent information easy to find.
<b>Communication with UTCs:</b> A special note targeted at university researchers was e-mailed to all of the UTC key contacts with a CVTC flyer.	Email	Transportation Researchers, Professors, and Students	2/15	Based on number of submissions from UTC students, this effort most likely had a significant impact.	Keep email brief and identify "ask" within the first few sentences. Use tracking tools to determine if the email was opened, forwarded, etc.

## Appendix A: Outreach Efforts and Results

Tactic	Type	Target Audience	Date	Results	Recommendations
<b>RITA Website Carousel:</b> ITS JPO posted an announcement about the CVTC on the rotating carousel of the RITA home page. Prominent exposure on the RITA website provided wider audience coverage from the traditional visitors to the ITS JPO site.	Internet	Transportation Professionals	1/25	Excellent visibility. Generated 58 CVTC website visits.	
<b>Meetup Postings:</b> Contacted the organizers of Meetup groups that focus on technology, transportation, or innovation, and encouraged organizers to promote the CVTC to their members.	Social Networks	Entrepreneurs, Inventors, Transportation & Technology Enthusiasts	3/21 to 3/31	Two of the seven Meetups contacted agreed to alert their members.	Any member of a Meetup may post a message to the group without contacting the group organizers, so encourage stakeholders to post directly to their Meetup groups.
<b>Professional Organizations:</b> Sent personal emails to the headquarter, region, and/or chapter contacts of several professional transportation, engineering, and wireless organizations to request promotion to their members via traditional and viral channels.	Email/ Social Networks	Transportation and Engineering Professionals	3/30 to 4/15	Organization leaders at headquarter and regional offices were most receptive to promoting the CVTC to members. SWE, APA, WTS, and TBP all posted CVTC information on websites or via social media networks within days of receiving the request.	Personal outreach to these contacts was extremely effective, but also time consuming and resource intensive. Engage ITS JPO employees in the challenge, arm them with challenge messaging, and encourage them to reach out via their networks. The more people conducting outreach, the faster the message will spread.
<b>Updated Facebook postings:</b> ITS JPO planned to post new information on the RITA Facebook page, as challenge updates were announced. The number of subscribers to the RITA Facebook page continues to increase.	Social Networking	Transportation Professionals	1/25 and 4/26		Only two CVTC posts were made to the RITA Facebook page at the very beginning and end of the submission period. Calendar a series of potential posts and work with the site administrator to ensure that messages are posted in a timely manner, and comments are addressed.

## Appendix A: Outreach Efforts and Results

Tactic	Type	Target Audience	Date	Results	Recommendations
<p><b>Posting on LinkedIn Groups:</b> Discussions were posted to ITS, inventor, and transportation LinkedIn groups to encourage participation among likely solvers.</p>	Social Networking	Transportation Professionals, Inventors	Primarily in April	Generated 115 website visits. Posted as a discussion topic to 9 transportation groups, 2 emerging technology groups, and 1 inventors group. Postings generated 13 comments, and 2 submissions. Exposure to ~76,000 members.	Start earlier. Identify groups that engage likely solvers. Begin by asking internal audiences and stakeholders to post to their groups and keep a record of all group postings. Note: each LinkedIn account can only be associated with a maximum of 50 groups.
<p><b>Message on the White House Technology Blog:</b> A blog post from RITA Administrator Peter Appel was posted on the White House Technology blog to give the challenge a higher profile in the technology community.</p>	Internet	General Public, Technology Enthusiasts	4/4	Generated 10 website visits.	
<p><b>Pre-eminent Scholar Outreach:</b> Identified the top 10 researchers publishing on connected vehicle topics and contacted them personally or via email to request that they promote the CVTC to their students and through their communities.</p>	Email/ Phone	Connected Vehicle Thought-Leaders	4/5	Professors at 4 of the 10 universities identified agreed to promote the CVTC through their networks (University of Minnesota, University of California at Berkeley, University of Oklahoma, and Virginia Tech).	



## Appendix A: Outreach Efforts and Results

Tactic	Type	Target Audience	Date	Results	Recommendations
<p><b>Student Chapters of Professional Transportation &amp; Engineering Organizations:</b> Contacted organization headquarters and student chapters of IEEE, ITE, HKN, and SAE to request that the CVTC be promoted to members. Email included hyperlinks to the CVTC website.</p>	Email	Engineering & Transportation University Students	4/4 to 4/8	Emails to these organizations had a high bounce rate (23% avg.) indicating that many of the officers or associated email addresses were outdated. Of the emails received, about 25% were opened, indicating the right audiences. Few of the original emails were forwarded.	Allow time to build relationships with the parent organization and demonstrate how the challenge could benefit members. The parent organization can suggest the best methods for contacting chapters, and early planning will enable incorporation into organizational newsletters and/or events.
<p><b>Top Entrepreneurial Business Programs - University Outreach:</b> Contacted the dean's office or marketing department of Entrepreneurial Business programs to encourage the promotion of the CVTC among students, and through related classes and campus organizations. *Selected the top 10 programs according to U.S. News &amp; World Report 2011 rankings.</p>	Email/Phone	Business Students	4/10	UNC Chapel Hill agreed to disseminate information to students and professors.	Start early to ensure inclusion in campus publications. Send media release to campus media.
<p><b>Top Electrical Engineering Programs - University Outreach:</b> Contacted the dean's office or marketing department of Electrical Engineering programs to encourage promotion of the CVTC among student, and through related classes and campus organizations. *Selected the top 10 programs according to U.S. News &amp; World Report 2011 rankings.</p>	Email/Phone	Engineering Students	4/10	Purdue University posted a notice on the department's website.	Start early to ensure inclusion in campus publications. Send media release to campus media.

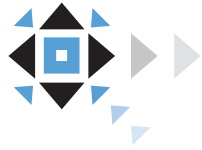
## Appendix A: Outreach Efforts and Results

Tactic	Type	Target Audience	Date	Results	Recommendations
<p><b>Phase II Press Release Distribution:</b> Distributed the original CVTC press release to an additional 40 media outlets that were not included in the original distribution. Followed up with personal emails to select reporters to ensure coverage.</p>	Media Relations	Wireless & Auto Technology Publications	4/11	6 articles in new media identified as part of the Phase II campaign.	During Phase II, we were restricted to only reissuing the original press release to new, small media outlets that had not be included in the original distribution. Widen the initial pool of media recipients, follow-up with key outlets, and contact them with challenge updates as available.
<p><b>CVTC Supporter Email:</b> Sent an email to 170 CVTC supporters requesting that they Like the Challenge via Facebook, and announcing the new prize opportunities for finalists.</p>	Email	CVTC Supporters	4/12	Facebook Likes increased from 123 to 270 between 4/20 and 5/1.	Create and calendar a series of updates for supporters so that they are continually engaged with the challenge.
<p><b>CVTC Web Update:</b> Posted an update to the CVTC webpage announcing new opportunities for finalists.</p>	Internet	ALL	4/18		Calendar a series of updates during campaign planning to ensure that there is new information to engage stakeholders every few weeks.
<p><b>ITS JPO website video:</b> The new ITS JPO website includes space for a welcome video from the RITA Administrator or his staff, the director (Shelley Row), program managers, and others. ITS JPO will create a short video that includes a message about the ITS JPO Challenge. This will ensure that people coming to the website for any purpose will see a short promotion for the challenge.</p>	Video	ALL	n/a	Not implemented.	

## Appendix A: Outreach Efforts and Results

Tactic	Type	Target Audience	Date	Results	Recommendations
<p><b>Stakeholder Engagement:</b> The Stakeholder Involvement and Communications Management Implementation Framework can be leveraged, by distributing press releases announcing the challenge to the publication editors for their potential use.</p>	Personal Interactions	Transportation Professionals, Students, Innovators, Engineers	Ongoing		While an excellent profile of potential partners was compiled prior to the campaign launch, lack of resources limited contact with these partners until very late in the challenge, if at all. Identify and prioritize partners and how they can assist. Contact these partners early in the challenge planning process and provide turnkey content to promote the challenge.
Email to members of ITS JPO email distribution list.	Email	Transportation Professionals	n/a	Not sure if/when implemented.	

\*Information is based on known and documented results. It is likely the news of the CVTC was disseminated much more widely through personal or proprietary networks.



# Connected Vehicle Technology Challenge

**RITA** Intelligent Transportation Systems Joint Program Office

**Connected Vehicle Technology Challenge**  
<http://connectedvehicle.challenge.gov>

*America's transportation system is among the best in the world. Yet Americans face crash risks, congestion, environmental impacts, and other detriments that erode our quality of life.*

**Technology Challenge**

An advanced open source wireless technology called Dedicated Short-Range Communications (DSRC) can make the transportation system safer, more efficient and even "greener."

DSRC enables connectivity for vehicles of all kinds — cars, trucks, buses, taxis, fleets, trains, motorcycles and even bicycles. It allows vehicles, whether traveling slowly or even over 60 mph, to communicate with each other, stationary roadside equipment, and mobile devices.

The U.S. Department of Transportation (DOT) believes that there are new approaches, partnerships and devices for using DSRC that innovators among the broader public can and will devise, if they are called to participate.

**This is that invitation.**  
[Read more](#) (over)

U.S. Department of Transportation  
 Research and Innovative Technology Administration

**RITA** Intelligent Transportation Systems Joint Program Office

*When vehicles talk to each other, what should they say?*

**Connected Vehicle Technology Challenge**

**TO ENTER, GO TO:**  
<http://connectedvehicle.challenge.gov>

U.S. Department of Transportation  
 Research and Innovative Technology Administration

## CVTC Brand

- **78** submissions, 40 of which were submitted in the last 48 hours of the challenge
- **213** Supporters (as of 5/2)
- **8th** most popular challenge on Challenge.gov (as of 5/2)

**Connected Vehicle Technology Challenge**

Everyone has good ideas. Share yours.  
<http://connectedvehicle.challenge.gov>

**Connected Vehicle Technology Challenge**

When vehicles talk to each other what should they say?

**>> Take the challenge!**

**RITA** U.S. Department of Transportation Research and Innovative Technology Administration

U.S. Department of Transportation  
 Research and Innovative Technology Administration

**Connected Vehicle Technology Challenge**

**Connected Vehicle Technology Challenge**  
 When Vehicles Talk to Each Other, What Should They Say? [Open Call for Ideas](#) [More>>](#)

**Welcome to RITA**

RITA coordinates the U.S. Department of Transportation's research and education programs, and is working to bring advanced technologies into the transportation system. RITA also offers vital transportation statistics and analysis, and supports national efforts to improve education and training in transportation-related fields. RITA works to ensure that the nation's transportation research investments produce results for the American people.

**Distraction Driving**

At the U.S. Department of Transportation, we heard America's call to end the dangerous practice of distracted driving on our nation's roadways. Distracted driving is a serious, life-threatening practice and we will not rest until we stop it. [More>>](#)

**Offices**

- Bureau of Transportation Statistics
- National Transportation Library
- Intelligent Transportation Systems
- Positioning, Navigation and Timing
- Research, Development and Technology
- University Transportation Centers
- Transportation Safety Institute
- Volpe National Transportation Systems Center

**RITA News and Noteworthy**

- 1/13/2011 - October 2010 Airline Traffic Data: System Traffic Up 5.6 Percent from October 2009
- 1/12/2011 - Freight Transportation Services Index (TSI) Fall 0.3% in November from October
- 1/11/2011 - No Tarmac Delays Longer Than Three Hours for the Second Month in a Row

**Recent Products**



# Connected Vehicle Technology Challenge

# Media Coverage

Articles in approximately 40 online and print outlets.

**ITS America Launches Connected Vehicle Technology Scan**

April, 2011. Under sponsorship from the US Department of Transportation (USDOT) Intelligent Transportation Systems Joint Program Office (ITS-JPO), the Intelligent Transportation Society of America (ITS America) is conducting the **Connected Vehicle Technology Scan and Assessment** project.

This two year scanning series will assess emerging, converging and enabling technologies outside the domain of mainstream transportation research. ITS America seeks technologies that will potentially impact state-of-the-art, or state of the practice in ITS deployment over the next decade, with an emphasis on the "connected vehicle." [Read more.](#)

**THE TRUCKER.COM**  
WE DRIVE THE WEB

Home | Log in | Mail | My Jobs | Account | Help

Search For: \_\_\_\_\_ within: News

Home > The Nation > View Story

Sponsored By:

The Nation | Business | Equipment | Features

**DOT announces connected vehicle technology challenge**

The Trucker News Services

1/25/2011

The U.S. Department of Transportation's Research and Innovative Technology Administration (RITA) Monday announced the Connected Vehicle Technology Challenge, a new national competition seeking ideas for using wireless connectivity between vehicles to make transportation safer, greener and easier.

**WIRED** SUBSCRIBE SECTIONS BLOGS REVIEWS VIDEO HOW-TO

**AUTOPIA**  
ROAD TO THE FUTURE

PREVIOUS POST NEXT POST

**'Talking' Cars Are Coming Soon to Keep Us Safe**

By Chuck Squatriglia January 31, 2011 | 7:00 am | Categories: Infrastructure

It won't be long before our cars "talk" to each other, keeping tabs on everything around us and alerting us to threats we aren't aware of. Several automakers are developing these nanny cars, and the government is seeking ideas to advance the technology.

Ford has shown the technology works, rolling out a crash-avoidance system that allows cars to communicate with each other at distances of more than 900 feet. It uses GPS and wi-fi signals emitted 10 times a second to provide a 360-degree view around the car. When the system detects a risk — say,

**Go!** exploring the world of transportation  
Published by Institute for Transportation, Iowa State University

Home Features Blog Careers Education Media Subscribe Contribute About Go! | Vamost!

**Recent Features**

- Book Reviews
  - Riding the Rails more...
- Careers
  - Truck: Semi-Truck Driver more...
- Colleges &

**Connected Vehicle Technology Challenge**

Reina Wilkants, April 19, 2011

In Games and Contests > Contests > Connected Vehicle Technology Challenge

The US Department of Transportation invites you to compete in the Connected Vehicle Technology Challenge. Send your innovative ideas for using DSRC (Dedicated Short Range Communications) technology to make life better for people and society at large. **Deadline: May 1.** (Download flyer)

**Blog and media**

**The Go! Blog**

- Tires: Where the rubber hits the road
- Big Brother? Not quite: Vehicle camera and teen drivers
- Wad on a passing wheel
- S, S, L, Luffuff! Build and launch a rocket

**Media**

- An Introduction to Transportation Careers
- How to: Check your oil
- Affordability Index
- Funny Nicaraguan Speed Bump Signs
- Air - La Femme D'Argent
- Forget escalators! Check out the subway slide

**CCJ DIGITAL**  
COMMERCIAL CARRIER JOURNAL  
Randall & Reilly  
A DIVISION OF THE TRANSPORTATION COMMISSION

Home News Magazine Products Education Events/Program

**DOT ISSUES CONNECTED VEHICLE TECHNOLOGY CHALLENGE**

By COLLEEN  
Published January, 04 2011

The U.S. Department of Transportation's Research and Innovative Technology Administration announced the Connected Vehicle Technology Challenge, a new national competition seeking ideas for using wireless connectivity between vehicles to make transportation safer, greener and easier. Through the competition, RITA is soliciting ideas for products or applications that use Dedicated Short Range Communications, an advanced wireless technology, similar to WiFi but faster and more secure.

DSRC can communicate basic messages — such as alerts about imminent crash situations or roadway hazards — from one vehicle to another in a fraction of a second with minimal interference and without manipulation by the driver. The spectrum used by DSRC technology has been reserved by the Federal Communications Commission for transportation applications. "This is an example of new technology







## Connected Vehicle Technology Challenge

# Internet Coverage

- **8,281** website visits/5,904 unique visitors (2/6 to 5/2)
- Approximately **22%** of the 1135 emails sent to contacts at chapters of IEEE, ITE, HKN, and TBP were opened

the WHITE HOUSE PRESIDENT BARACK OBAMA

Office of Science and Technology Policy

Department of Transportation's Wireless Research Ties Intelligent Transport to Clean Fleets

FAST L

United States Department of Transportation

FAST L

January 25, 2011

Challenge.gov

Government Challenges, Your Solutions

US Dept of Transportation Connected Vehicle Technology Challenge, Submission Due May 1

PURDUE UNIVERSITY

College of Science Department of Computer Science

US Dept of Transportation Connected Vehicle Technology Challenge, Submission Due May 1

Inventor Notes

Connected Vehicle Technology Challenge

Imagine that... transit and truck drivers

United States Department of Transportation

Guest Blogger RITA Administrator Peter Appel: Connected Vehicle Technology Challenge seeks your vision for transportation applications

Intelligent Transportation Systems Joint Program Office

Connected Vehicle Technology Challenge

Challenge.gov

Government Challenges, Your Solutions

Connected Vehicle Technology Challenge





# Social Media Coverage

LinkedIn



twitter



facebook



- 299 Facebook "Likes" (as of 5/2)
- 9.8% of website visitors referred by Facebook
- 1.4% of website visitors referred by LinkedIn

**LinkedIn** Account Type: Basic

Home Profile Contacts Groups Jobs Inbox Companies News More

**Traffic Engineer and Transportation Planner Network**

Discussions Members Promotions Jobs Search More...

**When vehicles talk, what should they say? Submit your idea.**  
The U.S. DOT is seeking ideas about innovative uses for wireless vehicle technology. Submissions are due May 1, but are short, and need not be technical. Finalists will have the opportunity to present their ideas at the Intelligent Transportation Systems World Congress in Orlando this October.

**Connected Vehicle Technology Challenge**  
connectedvehicle.challenge.gov

2 months ago

Like Comment Stop Following Flag More

Anwar Basha, Hamby Hutcheson like this

16 comments

**Society of Women Engineers**

The Department of Transportation is launching a competition, the Connected Vehicle Technology Challenge, that calls for novel, implementable new uses for Dedicated Short-Range Communications. Submissions are due May 1; for more information visit their website below.

**Connected Vehicle Technology Challenge**  
connectedvehicle.challenge.gov

New wireless technology enables connectivity for vehicles of all kinds—cars, trains and even bicycles. Vehicles can "talk" to each other, traffic signals, and mobile devices. What should they say?

Monday at 12:30pm · Share

2 people like this.

**WTSMN**

Will YOUR idea change the future of transport? Test your creativity with the Connected Vehicle Tech Challenge <http://bit.ly/fLaDUM>

8:21 PM Apr 5th via Tweetie for Mac

Target Field comes in 12th, not bad! RT @Richard\_Florida: RT

**SWEtalk**

Dept of Transportation launches new competition for vehicle technologies; deadline is May 1. For details, visit <http://tinyurl.com/48n5mhy>

9:31 AM Apr 4th via web from Chicago, IL

Glad you had a great time! RT @vivienne0419: I love #SWE!! Region F conference was awesome

6:52 AM Mar 28th via web from Chicago, IL

**American Planning Association** Like

Non-Profit Organization

ONLINE COURSES  
convenient.  
#fordable.  
interactive.

**American Planning Association**

Wall American Planning Assoca... · Top Posts

**American Planning Association**

The U.S. Department of Transportation is seeking entries for its Connected Vehicle Technology Challenge. Submissions must be received by May 1, 2011.

**Connected Vehicle Technology Challenge**  
connectedvehicle.challenge.gov

New wireless technology enables connectivity for vehicles of all kinds—cars, trains and even bicycles. Vehicles can "talk" to each other, traffic signals, and mobile devices. What should they say?

Tuesday at 1:13pm · Like · Comment

Albert Zema likes this.

