

New conversations about speed

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Abstract

As part of New Zealand's 10 year road safety strategy, *Safer Journeys*, people need help to understand the benefits of travelling at safer speeds. From surveys of vehicle speeds and of public attitudes to road safety, the majority of road users broadly recognise the risks of speeding and support enforcement of the speed limit. However, speed-related crashes remain a significant part of the road toll, and a significant percentage of vehicles continue to exceed posted speed limits. In summary, many people do not put their understanding of speed risk into practice. In a safe system, road users have greater understanding of human vulnerability and the strong link between speeds and serious trauma, and greater tolerance towards other users' mistakes. Target audience research, through individual and group interviews, advertising concept tests, and attitude surveys, reveals the messages from safety agencies are disconnected from the views of their audiences. This paper discusses a new approach in New Zealand which attempts to engage with the driving public in the same conversational space that they themselves talk and think about speed. Two recent pieces of advertising communication will be presented, addressing human vulnerability in crashes, and driving attitudes which encourage tolerance. A key measure is the level and change in public conversations about road safety and speed, obtained using social media analytical tools. The results so far will include public reaction and attitude shifts, changes in the language and content of social media conversations, and changes if any in observed speeds and crash rates.

Introduction

Excessive speed and speed-related crashes and injuries continue to present a major difficulty for road safety agencies, health agencies and Police. In New Zealand, more than 500 people are killed or seriously injured each year in crashes where excessive speed for the conditions was a contributing factor. The number of fatal and serious injuries has decreased over the past decade from around 700 per year during the period 2005–2008, but speed-related crashes still account for 20–25% of all fatal and serious injuries in road crashes.

Factors behind the reduction in speed-related fatal and serious injuries include a mixture of interventions, such as setting appropriate speed limits, enforcement, using speed detection devices and speed cameras, and advertising safety messages. Over the years, the advertising messages have taken a variety of approaches, suggesting that the consequences of speeding could be to increase your chances of crashing and killing yourself or your passengers, to kill other people, to cause grief and anguish for families and friends, to injure children or put them in danger, to receive a ticket or lose your licence, or to try in vain to beat the laws of physics.

New Zealand's road safety strategy is founded on a safe system approach, which focuses attention on programmes, measures and interventions designed to reduce fatal and serious injuries, and this paper will use the safe system approach when discussing trends and results. Serious injuries in New Zealand crash reports are defined as fractures, concussion, internal injuries, crushings, severe cuts and lacerations, severe general shock necessitating medical treatment, and any other injury involving removal to and detention in hospital.

In a safe system, people would travel at the right speed for the conditions, but should not be killed or seriously injured when they make a mistake.

Speed campaign

For the past six years, the speed campaign has been based around 6 advertising messages, promoting variations on the takeout to “slow down”:

- 2006–2007: the risk to vulnerable road users, especially children near schools
- 2007–2008: the risk of getting a speeding ticket, or crashing
- 2008–2009: the physics of taking a corner too fast
- 2009–2010: that your children learn their speeding from you
- 2009–2011: that speeding drivers are less able to react to unexpected events
- 2010–2012: that speeding is the opposite of staying in control.

Overall, the speed campaign has generated unprompted audience recall at around the 35-40% level, and target audience relevance around the 60% level [Glasshouse Consulting, 2013].

The speed campaign aims to support enforcement and to change driver behaviour. Figure 1 shows enforcement levels were maintained between 2005 and 2010 and increased from 2011 to around 900,000 speeding infringement notices issued per year [NZ Police, 2013]. Television advertising has been placed at an average weight of approximately 250 rating points (tarps) per month during that period, to promote the “slow down” message in support of enforcement activity.

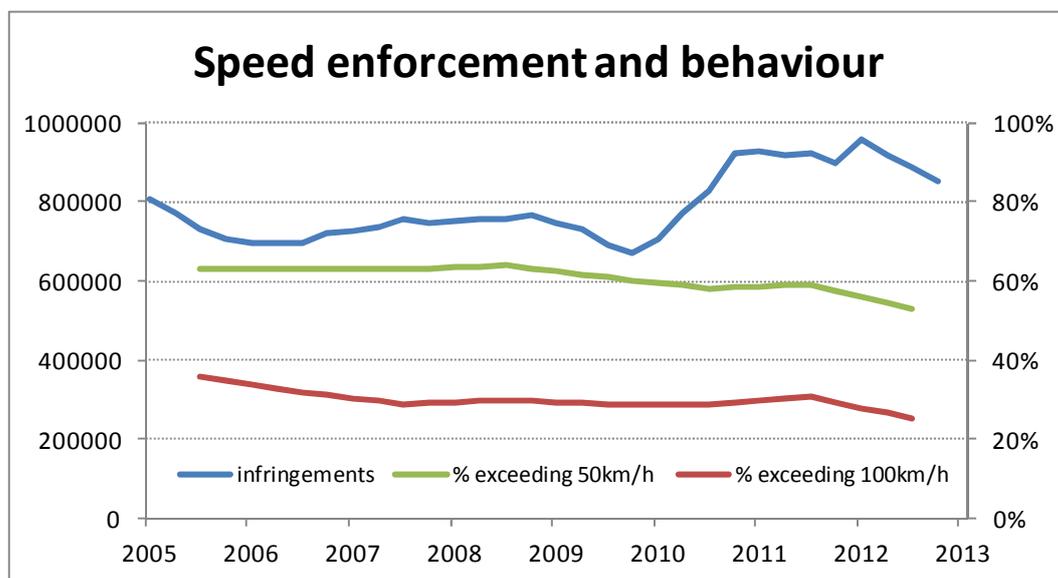


Figure 1. Number of speeding infringement notices issued (rolling 12 month totals, left axis), and percentage of drivers exceeding the 100km/h and 50km/h speed limits (right axis)

The primary measure of driver behaviour comes from annual roadside surveys of vehicle speeds, conducted by the Ministry of Transport, which show a continuing pattern of driving in excess of the legal limits [Ministry of Transport, 2012a]. In the 2012 survey, speeds were measured for 12,390 cars on the open road (speed limit 100km/h) and 16,490 cars on urban roads (speed limit 50km/h). The survey was spread over 67 open road and 64 urban sites. On urban streets, 53% of cars exceeded the 50km/h speed limit, and 7% exceeded the limit by more than 10km/h. On the open

road, 25% of cars travelled faster than the 100km/h limit, and 4% exceeded the limit by more than 10km/h.

Mean speeds and the percentage of drivers exceeding the posted limits in on both urban and rural roads, have steadily decreased over the same period [Table 1], but high numbers of drivers continue to travel over the speed limits.

Table 1. Results from annual surveys of vehicle speeds: mean speeds and percentages of drivers exceeding speed limits, 2005-2012

	2005	2006	2007	2008	2009	2010	2011	2012
Mean speed on 100km/h roads	97	96	96	97	96	96	97	96
Mean speed on 50km/h roads	52	53	53	53	52	52	52	51
Percentage exceeding 100km/h	36%	32%	29%	30%	29%	29%	31%	25%
Percentage exceeding 50km/h	63%	63%	63%	64%	61%	58%	59%	53%

Table 2. Attitudes to speed from annual survey of public attitudes to road safety

People who:	2007	2012
enjoy driving fast on the open road	35%	36%
think there's not much chance of a crash	19%	15%
think they're not likely to be caught speeding	29%	27%
think people caught speeding are just unlucky	19%	28%
think enforcing speeds helps lower the road toll	75%	77%
think speed cameras help lower the road toll	61%	67%
think the 100km/h limit should be raised	17%	17%

Current public attitudes to speeding are available from several sources.

Public consultation on strategy development

During the development of the *Safer Journeys* strategy, many public submissions commented that speed is not the underlying problem. A common view from the general driving public was: "There is too much focus on speeding and not enough on good driving." Training, education and driving to the conditions were mentioned as more important than lowering speed limits [Ministry of Transport, 2009]. In general, submitters placed more emphasis on initiatives aimed at road users than on roading, vehicle, or speed initiatives, suggesting they are still more focussed on the driver than other safe system elements.

Public attitude surveys

Annual surveys of public attitudes to road safety [Ministry of Transport, 2012b] show that public attitudes to speed enforcement have generally been slowly improving over the past 10 years, more so since 2000. There is general public agreement on the rights and wrongs and risks associated with speeding, for example:

- most people (77%) agree that enforcing the speed limit helps to lower the road toll

- a smaller majority (67%) agree that using speed cameras helps lower the road toll, and, that speed cameras are operated fairly (70%)
- a solid proportion (36%, unchanged from six years ago), believes that the penalties for speeding are not very severe.

Attitudes towards speed have barely shifted during this period, however attitudinal change has not been the major focus of the campaign.

Public reactions to advertising

The performance of the NZ Transport Agency's advertising campaigns is monitored by a continuous online survey, conducted throughout the year and averaging 55 participants per week. The survey sample is structured to provide sufficient numbers of males, young, people, rural people and Maori for these groups to be analysed separately. Males and young people are therefore over-sampled to enable these analyses. The survey data include weightings to standardise the sample to a normal demographic distribution, to permit analyses of the whole sample [Table 3].

Survey questions of interest to this paper include:

- recall, relevance, likeability and message takeout
- attitudes to driving and road safety issues
- demographic information.

Table 3. Advertising survey sample structure (3 months, N=720)

	sample structure	population structure
Males	60%	50%
Females	40%	50%
16-24 year olds	45%	17%
Rural/provincial	20%	27%
Maori	14%	16%

The advertising performance survey includes several attitudinal questions. These show that while there is reasonable acceptance by the public of the connection between speed and injury, this knowledge, or perhaps the connection between fast speeds and serious trauma has started to diminish in recent years. The percentage of respondents who agree that if you crash while exceeding the speed limit other people are very likely to be seriously hurt had been steadily declining since 2008, but has increased again in 2012 and 2013 [Figure 2].

Over the past 10 years average speeds have dropped and people have become increasingly aware that excessive speed can cause injury in a crash.

Audience knowledge and beliefs

According to the *Safer Journeys* strategy, the majority of road users broadly recognise the risks of speeding and support enforcement of the speed limit. However, crash statistics suggest that many do not put their understanding of speed risk into practice [Ministry of Transport 2010].

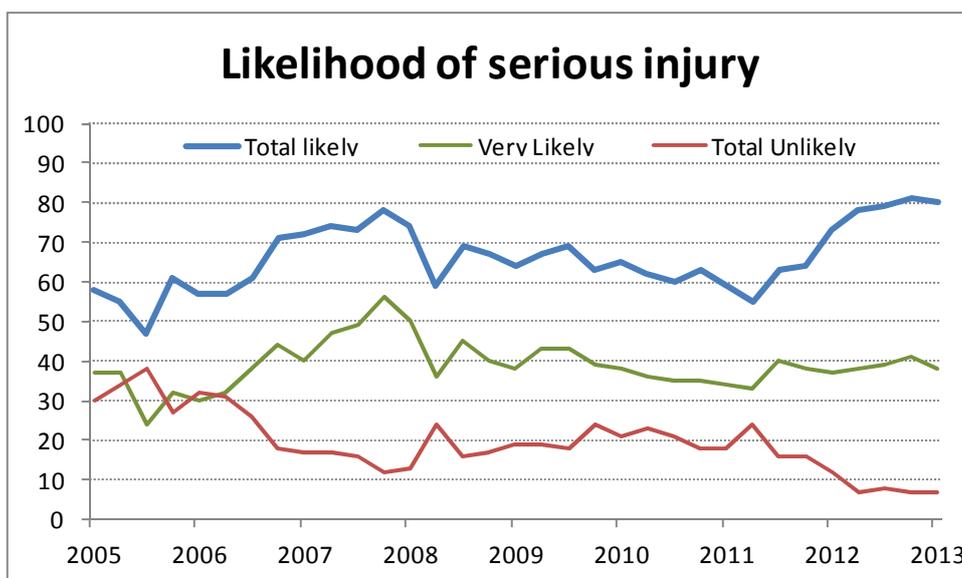


Figure 2. Percentage of surveyed people who estimated the likelihood that in an accident while driving over the speed limit, innocent people would be seriously or permanently hurt

The profile of drivers who crash while speeding, extracted from the NZ Crash Analysis System, indicates an overrepresentation of young people, males, and car drivers [Figure 3]. The types of cars are unexceptional. The incident descriptions in the crash reports show that ordinary people in ordinary cars, in both urban and rural environments, make mistakes when they are driving, and at excessive speeds for the conditions the mistakes that happen can have disastrous consequences.

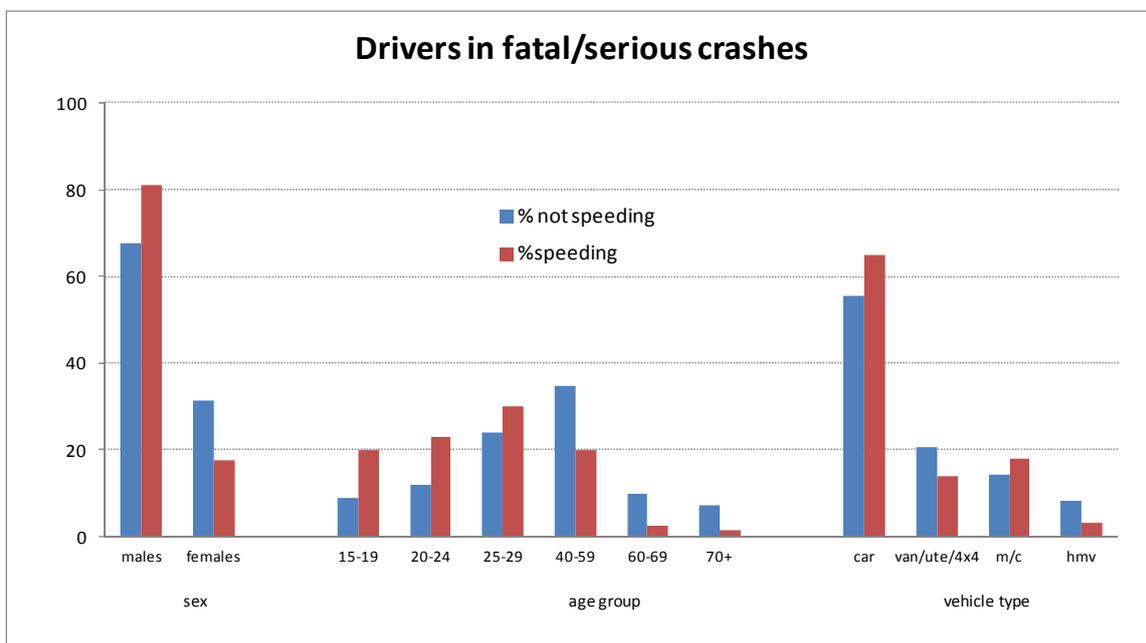


Figure 3. Comparative percentages of speeding and non-speeding drivers involved in fatal or serious injury crashes, 2010-2012, by sex, age group and vehicle type

Roadside surveys of vehicle speeds cannot provide information about the drivers in those vehicles. Some information is available from the advertising campaign tracking survey described above [Public reactions to advertising]. Respondents in this survey are asked about their own driving. Those who say they speed “a little”, or “when it’s safe” or “because they like it” tend to be in the 30–50 age group, perhaps the group which sees speeding as normal behaviour.

Speeds above the level at which Police actually enforce the limit, i.e. the tolerance level, are seen as much worse than speeds at the tolerance level. The advertising tracking survey indicates approximately 70% see driving at 65 km/h in urban areas (50km/h zones) as a problem but only 53% see driving at 60 km/h as a problem in urban areas [Glasshouse Consulting, 2013].

A qualitative study with speeding drivers in New Zealand, undertaken in 2006 as input for the advertising campaign, revealed that these drivers consider driving at speed is the norm – it is not something they think about nor do they make a conscious decision to speed. Typical comments from the drivers in the study were: “70–80 is not unsafe”, “Everyone does it, it’s normal, average”, “It’s my natural speed”.

This study concluded that drivers’ understanding of their speeding behaviour and its consequences is tenuous, and without understanding there is no conscious choice not to speed. In fact, their experience convinces them that they can successfully drive at speeds well in excess of the legal and advisory limits. Drivers who routinely drive at excessive speeds are comfortable with their driving ability, keeping up with a fast traffic flow or getting frustrated if it slows down, content that nothing untoward is likely to happen (least of all a serious crash), and certainly not their fault if it did, and confident that they will not be ticketed. They are not consciously speeding, they are just driving normally. They are in control [Research International, 2006].

Such qualitative and attitude survey findings over the years, including the feedback from testing advertising material with target audiences, have shown that people speed, not generally to save travel time, but to test themselves or their cars, to push their limits, or sometimes to relax. Speeders see themselves as superior to the average driver, and not as “hoons” who speed recklessly.

The recent Austroads report on driver attitudes to speed and speed enforcement also looked at the social acceptability of speeding in Australia and New Zealand [Austroads 2013]. Speeding was typically described as a common driving behaviour. Most participants acknowledged that they exceeded the speed limit in at least some situations, usually by 10% or less, but for a large minority their speeds regularly exceeded the limit by more than 10%. The regular speeding behaviour was reported both on highways, and in urban or residential areas. Speeds above the limit were not necessarily seen as “speeding”, such lower level breaches being described by many as an everyday occurrence, dissociated from any sense of danger. Speeding was seen as clearly reckless and unacceptable at lower levels if there were other factors (e.g. road works, increased pedestrian traffic, bad weather) that increased crash risk, or at higher levels such as more than 20km/h above the speed limit.

In general, there are some major disconnects between what the road safety agencies want to say about speed or the risks associated with speeding, and what the public or speeding drivers think about speed. The safety agency viewpoints can perhaps be summarised as:

- the speed limit is the maximum safe speed
- the road should suggest the right speed limit
- more people should be travelling at the right speeds
- there should be fewer high speed or high severity crashes
- it will take a big shift in attitudes to reduce speeds by 5 km/h
- people need to understand their vulnerability in a crash

- speeding is dangerous

By contrast, the knowledge and beliefs of the target audience can be summarised as:

- there is not much chance of a crash when speeding if you are careful
- speeding is not that wrong
- the speed limit is the limit at which speeds are enforced
- the current posted speed limits are about right
- we can drive the same in any conditions
- we like driving fast
- speeding drivers are better than the average driver.

The road safety advertising problem becomes more difficult when the conversation with the target audiences is not the same conversation that those audiences are having with themselves. This suggests that a further layer is needed to the speed campaign, to take on the challenge of engaging with the driving public in the same space that they themselves talk and think about speed.

In general, those drivers do not see speeding as dangerous, nor a serious offence.

Advertising

Two new advertising messages have been developed around a couple of insights which also reflect a safe system approach: (1) people are vulnerable, but believe that the safety features of the vehicle will protect them, a difficult conversation about human vulnerability when adoption of those same features is another message promoted by road safety agencies; (2) people are isolated, driving in their modern, comfortable vehicles, in a “bubble” separated from other road users, divorced from the world outside which is perceived as full of objects, obstacles, hazards and impediments to their enjoyment of the road.

People are vulnerable

The first of the new messages addressed human vulnerability in a speed-related crash situation. It acknowledged that vehicles are much safer than they used to be, and that roads are also continually upgraded and changed to make them safer for drivers. However while improvements continue to be made in these areas, the human body will never be upgraded. With this advertising approach, people were faced with truly understanding the vulnerability of their own body in a crash, that there are limits to what a body can sustain from crash forces before it is seriously injured or damaged

The advertising message encouraged the audience to consider aspects of a crash that they may not have considered before: that even with the best protection, you are still vulnerable.

The TV advertisement showed a high definition, slow motion representation of two adult car occupants in a crash at speed. Despite the energy-absorbing features of the vehicle, and the deployment of seatbelts and airbags for the occupants, the collision of organs with hard structures within the body (the third impact) was still sufficient to cause death or serious injuries. The TV advertisement was supported with



radio and outdoor advertising.

Further details of the advertising campaign can be found on the [Flying Objects website](#) [NZ Transport Agency, 2013].

Audience reaction to this advertising has been encouraging. The TV advertisement, “Flying Objects”, has high awareness, with nearly 90% of the surveyed audience being aware of the campaign when prompted. Relevance of the advertising to the target audience has reached over 50% within nine months from launch. Likeability has remained at around 30% during the lifetime of the TV advertisement [Figure 4], somewhat lower than average but reflecting the unpleasant content and imagery. Most advertisements comprising the overall speed campaign deliver a principal, default message of “slow down”, and this advertising is no exception. More useful are the secondary messages, the most significant of which are “you can still be injured even if using seatbelts or in a safe modern vehicle”, and “the impact of speed can cause major injury” [Figure 5].

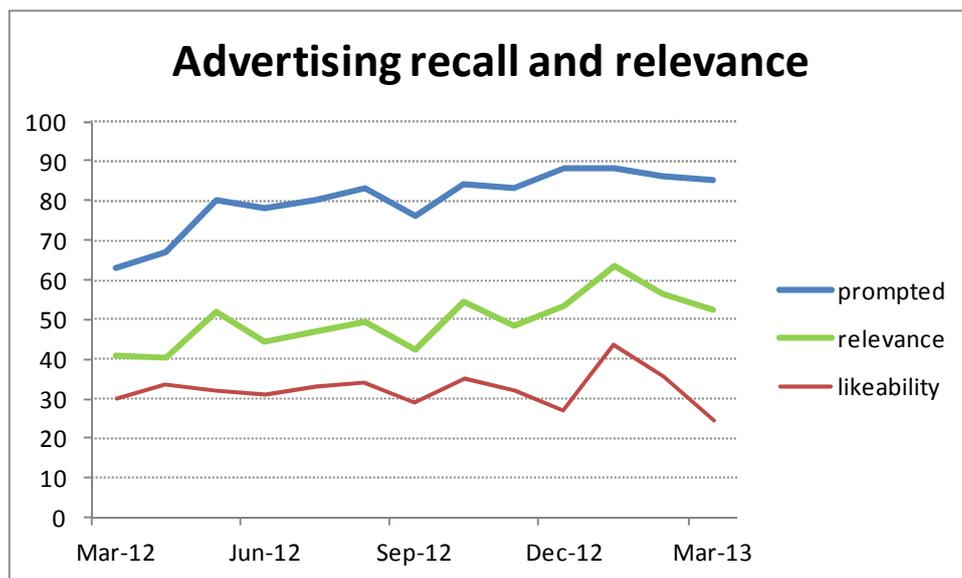


Figure 4. Percentages of surveyed audience who recalled the TV advertisement “Flying Objects”, liked the advertising, and found the advertising relevant to people like themselves

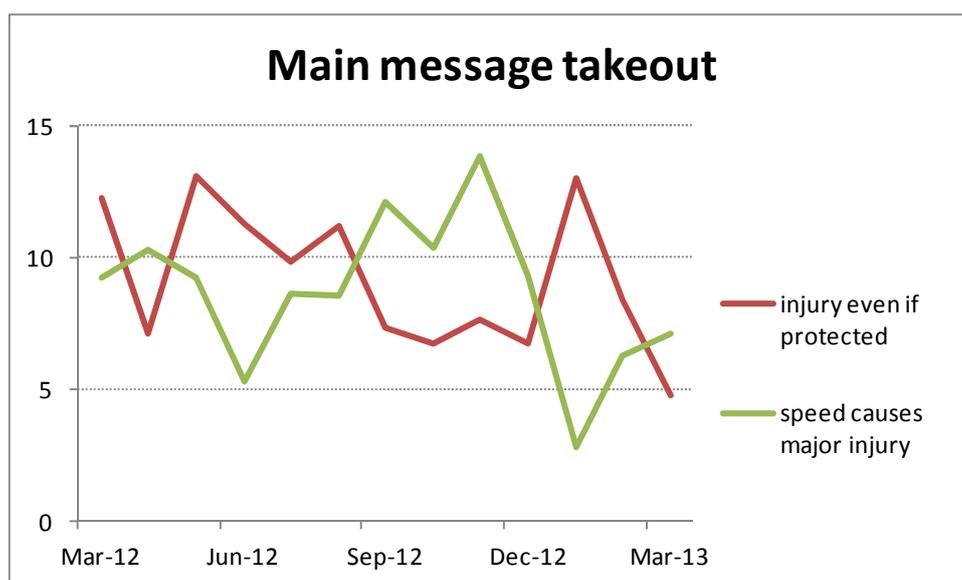


Figure 5. Percentage of surveyed audience who reply with key secondary messages to the question “What do you think the advertiser is saying to you in this advertisement?”

This development of the overall speed campaign has attempted to take the campaign into new territory. It delivers good audience reaction and acceptability, but the key new messages come through only weakly.

People are isolated

The second of the new messages was developed at first as an attempt to move the debates around speeding into a wider conversation. Earlier speed-related messages had been targeted at drivers in their comfort zones inside the vehicle, or at people immediately affected by a speeding driver's actions. The new approach aimed for the road to be seen more as a social space, where all road users interact with each other to achieve their varied goals. Road users would then be in a position to demand correct behaviours from each other, as a form of social etiquette, rather than rely on regulations and enforcement.

As the campaign developed it evolved quickly into an approach which addressed all driver and road user behaviours, rather than simply drivers' speeds.

In order to have drivers, and other road users, begin to consider the effects their behaviours have on others, and to see each other as fellow human beings, the first stage of the campaign used social media to allow people to discover their similarities with others who used the same roads, in a sense, to introduce road users to each other. This social media-led stage of the campaign has been supported by television, radio and outdoor advertising.

Further details of the advertising campaign can be found on the [Drive Social website](#) [NZ Transport Agency, 2013b].

The Drive Social campaign has been running since February 2013, so there are only limited data to date which can be used to assess its effects. With no crashes depicted in the advertisements, nor drink-driving, fatigue and speeding messages, the campaign is not readily seen by audiences as part of the road safety family. Consequently, audience recall of the television measured by the usual advertising tracking survey, described above, is low. Instead, audience cut-through is being measured through its impact on social media.

Among the measures being developed for this campaign are the quantity of campaign-related conversations, and the content of those conversations. The raw number of Twitter conversation streams which have appeared, as well as mentions and discussions in print media, provide the quantity measure. Content analysis of Twitter and blog conversations is used to detect shifts in the nature of those conversations. In the first two months, 265 separate Twitter conversations had opened. Driving behaviours which generated the most comment were tail-gating, failing to indicate, slow drivers, not obeying the speed limit, and impatience. While Drive Social is no longer part of the overall speed advertising campaign, it is of interest that several of the discussions which have developed do feature aspects of speeding.

The hashtag #drivesocial appeared in early April 2013 after a campaign-related tweet from one of the cellphone networks, and its use has continued with more than 500 new followers of the account in the first month. Mentions that included this hashtag now represent 15% of the monthly total of campaign-related tweets. Use of the hashtag gives another indication of how people are perceiving the Drive Social message, and it will be incorporated into future monitoring of the campaign.

This campaign which addresses general driving behaviour, rather than specific faults or misbehaviours, is demanding the development of new monitoring tools. Success will be measured by a change in the nature of the conversations, instead of the more traditional audience recall and

message takeout. Linking the new measures to attitudes and behaviours also provides a challenge. The campaign remains a work-in-progress.

Conclusion

The approaches to speed advertising described in this paper have taken the traditional tasks of public education and support for enforcement into new territory. The change is a consequence of adopting a safe system strategy, in which road users need to have greater understanding of human vulnerability and greater tolerance towards other users' mistakes. It also requires a change in the methods and tools used to monitor the performance and evaluate the effectiveness of the advertising messages.

Speed in the future may be one aspect of a wider conversation about driving behaviour, and the effect people's driving behaviour has on other road users. Social norms can therefore become the basis for the messages, rather than targeting specific behaviours with driver-focussed messages.

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