

3rd International Conference on
Driver Distraction and Inattention

Priorities for Research and Countermeasures

Driver Distraction and Inattention
2013



UNSW
A U S T R A L I A

Aim of this Special Session

- Interactive discussion with audience, notes/ppt shared publically on www.distractionconference.com
1. Summarize trends and comments during the conference
 - Discussion on conference content
 2. Identify priorities for Research
 3. Identify priorities for Countermeasures

Conference Trends & Comments

- Diversity in research topics
- Self-regulation, Mobile-Phone effects, Distraction event videos,
- Contexts, distraction in non-driving, distraction as part of working (truck/bus/shift)
- Naturalistic, Experimental, Epidemiological methods; validity of methods and tools, analysis biases
- Most papers focused on driver but the contributions of the whole system should be included holistically
- Cycling
- Definition/taxonomy – “Attentional Mismatch”, methods to reduce, emphasise research,
- Distraction from Monitoring (Automated Driving)
- Countermeasures, Creativity in HMI Design (encourage more HCI/HMI designers come),

Priorities for Research

- What do you think we should be doing research on?
- What do policy makers think we need to do research on?
- What are the things that keep you awake at night?

Priorities for Research

- Pedestrians, motorcycles, cyclists
- More focus on practical countermeasures e.g. for use in lobbying to policy makers, we could ask papers/presentations to include three key recommendations for research and countermeasures in their contributions (ask current conference and upcoming)
- Research on how to influence stakeholders and e.g. govt – how to communicate, e.g. have a panel with people who are policy makers discuss, what is the alternative to bans? If the law is not effective, then what policies are effective?
- How we encourage self-regulation, Research in context – influence of environment
- Out of vehicle distractions, cognitive impairment (e.g. diseases) & distraction, age related issues & distraction,
- Govt, Industry, Academia, People (GIAP) collaborative style/involvement
- Study how passengers contribute to safe driving (e.g. dementia driver having help from spouse), invite researchers on this topic
- Include drowsiness and other impairments (according to taxonomy) into the scope of the conference
- Collection and searchable categorization of a video repository on distraction and safety events from various sources, even youtube
- Session on distraction during automated driving

Countermeasures

1. Regulation, laws & policy

- Laws are generally ineffective on safety (more than half the audience thought so in a hand vote), partially because of the lack of enforcement, public opinion has to be in line with the laws,
- Organizational factors, Workplace e.g. police are required to be distracted while
- There isn't a lot to regulate on right now, e.g. once we have safe vehicle systems there maybe is more to regulate on

Countermeasures

1. Safe Vehicles

- Safe HMI
 - Guidelines for HMI design
 - Test methodologies for HMIs – design phase, on-market phase
 - Workload management and self-regulation support
 - Integration of nomadic/portable devices and software (e.g. Apps)

- Vehicle safety systems (forgiving of distraction, catching the outcome)
 - Automated vehicles & crash avoidance systems
 - Real-time measurement of distraction and inattention
 - Comment: encourage uptake of safer and newer model vehicles

Countermeasures

3. Safe Drivers/road users

- Distraction risk education (e.g. Licensing, Information Campaigns)
- Behavior-Based Safety management – support to employers, parents
- Financial incentives (e.g. Insurance, pay-as-you-drive)
- Changing social norms, "making distraction a stigma"
- Encouraging safety culture

4. Safe Roads

- Electronic Billboards, V2X, distraction-forgiving roads, user-friendly roads, design the roads to facilitate your countermeasure (e.g. drowsiness/distraction stop point)