

Technology to Improve Driving for Young and Older Drivers

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Younger drivers...

They do have/know ...

- Basic control skills
 - * video games that do not involve racing
- Rules of the road
 - * simulation - who has right of way
- How to drive
 - * simulation – following distances, etc.
 - * consistent, data/research driven driver's manual
 - How far should you follow? Stopping distance vs. cut in
 - How should you change lanes?
 - * Research based curricula for teaching advanced skills in sim (skid control, collision avoidance-steer vs. brake)

Younger drivers...

- How well are you driving? – Driver Monitoring

Why?

success of DriveCam-parental monitoring and feedback

huge plus for research

What and How

integrated recording software & web tools

(driver can turn off)

open slot recorder-insert USB drive (storage device)

still need video-plug in web cams (1 fwd, 1 interior)

seeing is believing

Difficulties

problem of access to CAN bus

NHTSA or SAE or ISO standard for black box

recording devices will change several times over vehicle lifetime

Younger drivers...

- Looking/planning strategies
where and when (the next training stage)
scanning strategies of “expert” drivers
- Dealing with workload
What is workload and how is it measured?
What is the workload for different driving situations?
need for standard measurement protocol
- Driving Responsibly – dealing with risk

Older drivers...

- Grandpa, it is time to stop driving....
beyond self assessment
“son of DriveCam”
video matters
How do we use the information?
- What is the effect of medical conditions and medications?
standard driving simulator protocols for FDA
What crashes do elderly have?
How can we simulate them (and not get people sick)?
How good is good enough?
How an we make the software cross platform?
- Standard driver’s manual is also relevant

