44th ITS cieca congress ISTANBUL
13-16 June 2012

PEARSON

Serious Gaming Techniques and their application to Hazard Perception Testing

Ivan Coutinho – Pearson VUE

cieca The International Commission for Driver Testing

TÜV SÜD

- Is there a role for Hazard Perception Tests in Driver Assessment programmes?
- DVA/DSA experience. HPT introduced in 2002
- TRL Study - drivers 'Cohort II: A study of learner and new drivers' 42,851 new drivers in the sample
- Reduction of accident liability 0.3%-3%
- Potential economic benefit of candidates taking a hazard perception test is between £8.6m and £86m per annum based on 2009 figures
- Safer drivers

WHY CONSIDER GAMING?

Good for Learning

Flow

**"A single-minded immersion...
harnessing the emotions
in the service
of performing and learning."**

-- Mihaly Csikszentmihalyi

"If a child can't learn the way we teach, maybe we should teach the way they learn.“

Sandra Day O’Conner

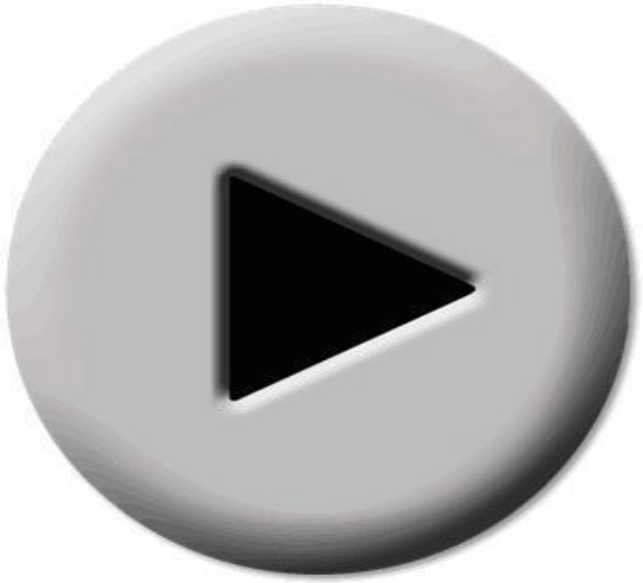
Group 7
Sirsutton
Vargo (*)
5624 / 8573 (66%)
3650 / 8666 (42%)
Lieutenant Lewis
Iceblood Garrison
[Inspiring Presence]
Omen - Lieutenant Lewis
Name TPS Threat %
Flash of Light
[00:15] [Guild] [Sirsutton:70]: 200!
[00:15] [Guild] [Sirsutton:70]: epixxx
[00:15] [Guild] [Kalan]: i dont suppose anyone has a bunch of [Core of Earth] or [Heart of Fire] laying around do they
[00:15] [Guild] [Rieo:59]: I was already undercutting someone else
[00:15] [Guild] [Whipcream:70]: 100!
[00:15] [Guild] [Xandy]: there arent any on the AH
[00:15] [Guild] [Rieo:59]: dumbass mooks

visit LONDON

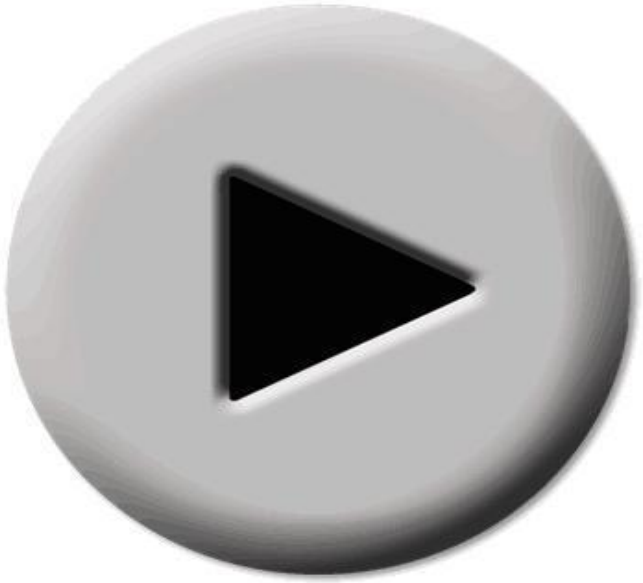
- Hazard Perception Test aims
- Enable an assessment of
  - Anticipation
  - Scanning
  - Hazard recognition
- Use of ‘Real’ scenarios
  - Advantage of video rather than CGI
- Demonstration

- Blended video and CGI Technology
- Drive down any road/route and capture an immediately usable video realistic environment. Customised locale
- Video captured in 3D using scanners, and multiple video cameras to create a 360° view.
- Blend CGI objects into video wherever required for realistic effects
- Tailor made scenarios for different Authorities

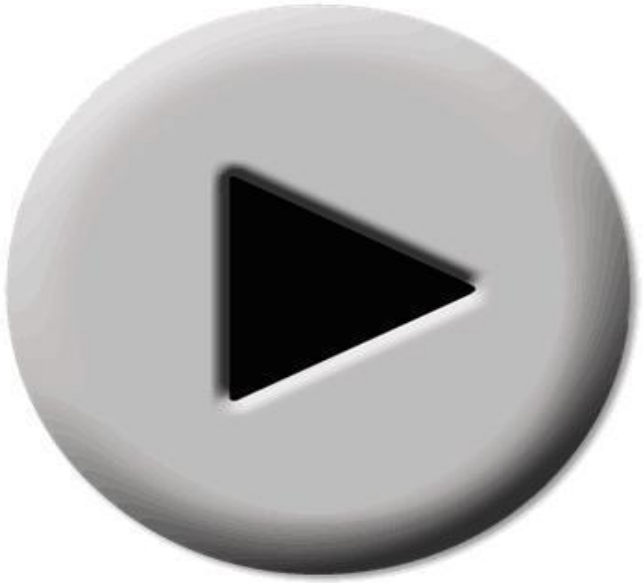
- **Prototype Clip**



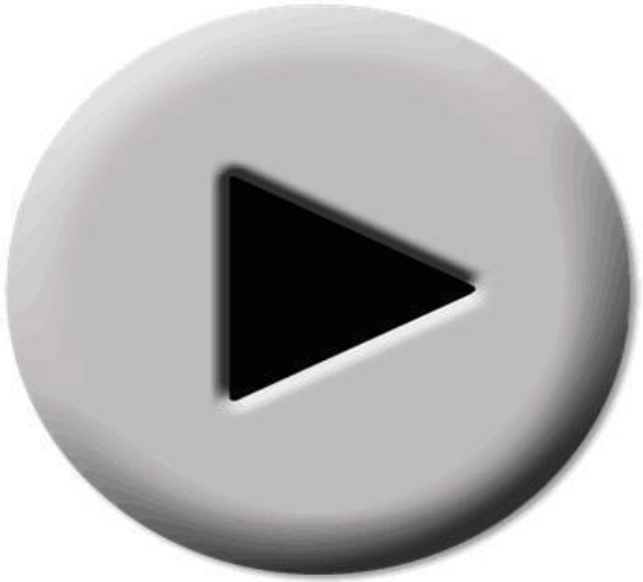
- **Add Dashboard Skin**

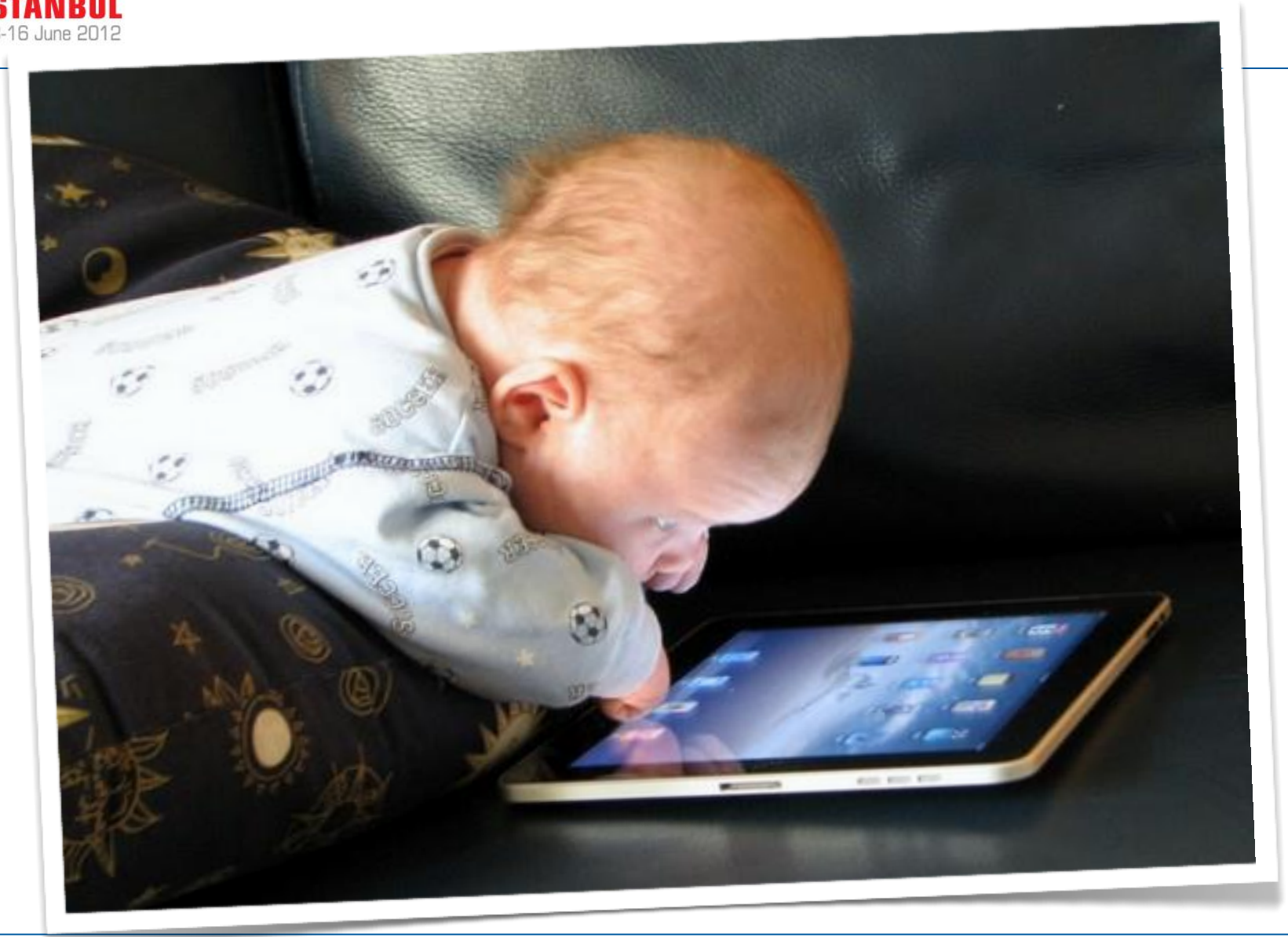


- **Adjust Vehicle Height**



- **Simulated Weather**



- Blend CGI Objects/Real Video

- Establish what constructs you want to measure
- Build scenarios that test and measure the constructs
- Research, pilot, review
- Fair, Valid, Reliable and Defensible
- Use technology to support your aims
- Technology, on its own, is not the answer