How Do I Make Eye Contact with a Robot Car?

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What do you look at when crossing?
What do pedestrians need to know?

• Warnings (to prevent imminent crashes)
• Right of way (to regulate traffic)
  • Acknowledgement
  • Intent
To prevent collisions, drivers and vulnerable road users need to:

- *Detect* each other
- *Communicate*
PBIC Discussion Guide

1. The Detection Problem
2. The V2X Problem
3. The Communication Problem
4. The Right-Of-Way Problem
5. The Passing Problem
6. The Speed Problem
7. The Pickup/Dropoff Problem
8. The Driver Handoff Problem
9. The Mode Shift Problem
The Detection Problem

IIHS Pedestrian Test Scenarios
What Computers “See”
The Communication Problem

Drive.ai Solves Autonomous Cars' Communication Problem

By Evan Ackerman
Posted 30 Aug 2016 | 16:00 GMT

IEEE SPECTRUM

Photo Illustration: Drive.ai
Decipher “Safe to Cross”

- 2-lane road with traffic in both directions
- 4-lane road with multiple cars
- Group of pedestrians
- Pedestrians on opposite sides
- Groups waiting on different corners
Potential Benefits to Pedestrians and Cyclists

• Speed Management
• Data collection
  • Crash data available for reporting and reconstruction
• New privacy concerns?

[Graph showing risk vs. impact speed]
Realism/Control Tradeoff

Test miles compared to 3 trillion miles driven annually

Google search: “PBIC Discussion Guide”

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