Human Factors Issues in Surface Transportation

Notes

1. Why do accidents happen?
   b. Three major facets: the driver, the automobile, and the environment
      i. Error can be introduced within each of these.
      ii. There are important HF contributions to be made within each.

2. Control of the vehicle
   a. Gibson & Crooks, 1938
   b. Sheridan, 2004

3. Perceptual Issues
   a. Often claimed that 90% of driving information is visual (Sivak, 1996)
   b. The connection between visual performance and accident rates is spurious (See Henderson & Burg, 1974)
      i. Dynamic visual abilities do seem to matter
      ii. Useful Field of View (UFOV)

4. The driver as an information processor
   a. Shinar, 1978
   b. DeWaard, 1996

5. Driver distraction
   a. McKnight & McKnight (1993) – driver distraction leads to accidents
   b. Summala & Näätänen (2002) – most driver distraction factors are under the direct control of the driver.

6. Technology in the car

References & Resources


