Design Building Workshop
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It is not the strongest of the species that survives, nor the most intelligent. It is the one most adaptable to change.

Charles Darwin
Role of the Low Vision Specialist

- To enable the visually impaired individual to adapt using different strategies:
  - Modifying LIGHT / GLARE
  - Modifying CONTRAST
  - Modifying SIZE / MAGNIFICATION
  - Modifying BEHAVIOR
Normally sighted individuals often experience a visual impairment

• **GLARE**: oncoming headlights, sun low on horizon

• **LIGHT**: menus in a romantic restaurant, finding one’s seat in a movie theatre

• **CONTRAST**: judging the edge of a step, reading a poor photocopy

• **SIZE**: print on disclaimers and the back of a medicine bottle
How is being visually impaired or legally blind different from being totally blind?

- Range of vision in visually impaired varies from 20/20 to 20/?
- May not need a white cane
- Usually make normal eye contact
- Thickness or absence of glasses is NOT an indicator of the level of vision loss
Sidewalk as seen by well sighted
Sidewalk as seen when there is a loss of contrast sensitivity
The typical brick staircase
Note how much harder it is to see the edge of the steps when there is contrast loss.
Street signs and information banners
As seen by a visually impaired individual
A face as seen when the background is brighter than the object
Same face seen by someone with low vision
Well designed steps with yellow edges
Yellow Edges are still visible under Low Contrast
Impact of Glare, Contrast and Vision Impairment in Elderly

• Study done at Berkeley School of Optometry

• Followed 900 patients ages 58 to 102

• All were "normally" sighted 20/40 or better

• Measured vision under various conditions of contrast and glare
Times worse than young for those with 20/40 or better visual acuity

Gunilla Haegerstrom-Portnoy, OD PhD University of California, Berkely
Summary

- Visually impaired individuals can have a range of vision loss
- Even the elderly with “good” measurable vision are impacted by visual impairments
- Modification of light, contrast, glare and size are the most important strategies currently used to help these individuals