Seniors, Baby Boomers, Old Folks

Handicapped
Disabled
Crippled

The first Wheelchair Ramp

- Mention of the first wheelchair was in China in 6 AD
- 1595 King Fillip II of Spain had a deluxe wheelchair made with foot and arm rest
- The first mention of a wheelchair ramp or "pente douce" is found in French archectural history.

The first Curb Cuts

- Curb cuts were designed for the connivance and safety of wheelchair users.
- Curb cuts originated in Berkley, California in 1970.
- Curb cuts make life easier for mothers with strollers, delivery men, and people using other mobility aids such as walkers.

A Rose by Any Other Name

Age related

- Macular degeneration effects people over 60
- Presbycusis -progressive hearing loss associated with aging
- Alzheimer's Disease
- COPD shortness of breath limits life expectancy

Disabilities

- Retinitis pigmentosa low vision
- Ushers Syndrome
- Multiple Sclerosis progressive cognitive and neuromuscular symptoms
- Cystic fibrosis frequent lung infections limits life expectance

Functional Parallels between Senior Citizens and People with Disabilities

- difficulty with physical activities
- reduction of activities at home
- reduction of activities at school
- reduction of activities at work and
- reduction in other activities.
 (vision, hearing, speech, mobility, dexterity, emotion, cognition and pain)

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- According to CNN Money and Met Life nursing home cost topped \$80,000 a year (4/12/13)
- Met Life fixed the monthly cost of Assisted Living at \$3,550.
- Met Life places the hourly rate of home health aids at \$21 an hour.
- Adult Day Services average \$70 a day.

What they are most afraid of

Seniors

 Loss of independence

 89 % fear nursing homes more than death (according to Aging in Place in America) **People with Disabilities**

Loss of independence

 Fear nursing homes more than death

Designing Intelligent Environments

- Imaging sensors
- Smart Wheelchairs
- Pressure Mat
- Medicaid Management Systems
- Remote Patient Monitoring
- Indoor location sensors
- Tongue Drive Sensors

Inclusive Home Design Act of 2012

- H.R. 5781
- Representative Janice D. Schakowsky
- To require all newly constructed, federally assisted, single-family houses and town houses to meet minimum standards of visitability for persons with disabilities.
- Committees House Financial Services



Visitability

- Designing intelligent environments
- One entrance that does not have steps
- Doors that are 32 inches wide, particularly the bathroom door
- Hallways 42 inches wide
- Grab bars in the shower/bathtub and close to the toilet
- Thermostat and light switches between 15 and 48 inches from the floor.

Planning for Access

- Consider access early in the process and throughout all phases
 - Project use (residential, retail, office, etc.)
 - Funding sources (public vs. private)
 - Building type (new construction vs. renovation)
 - Housing type (Single family vs. multifamily)
 - Housing ownership (Condo vs. rental)

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Technology and Durable Medical Equipment



Beyond Robbie the Robot

- Dedicated robots included robots helping to administer medications and alerting a remote caregiver if the patient is about to miss his or her medicine dose (oral or no-oral medications).
- A semi-autonomous robot has been designed to support disabled and elderly people in their daily life activities, like preparing and serving a meal, or reintegration in professional life.

Smart Homes More than "Help I've Fallen"

- Home security systems are more than burglar alarms
- New system include

Panic button

Voice activated dialing

Broken glass sensors

Motion detectors

Pressure Pad

Reminders and Medication Dispensers



Really Smart Phones



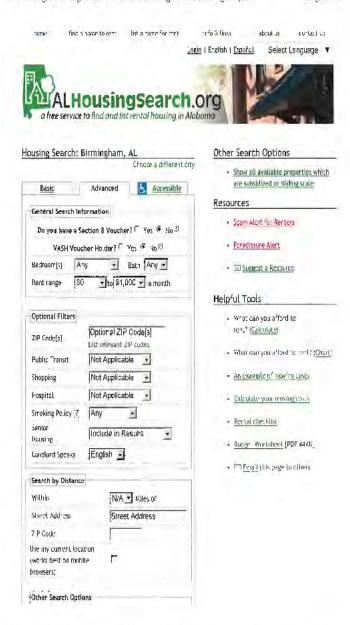
Home Security System Can

 Cameras can provide caregivers with peace of mind when at work or shopping

Two-way audio between the camera and monitor

- Camera has infrared LED's to "see in the dark"
 - 15 foot range





"Social Equity" has been defined by APA (*Planning & Community Equity,* 1994) as "the expansion of opportunities for betterment that are available to those communities most in need, creating more choices for those who have few."