

User Group

Yonah Graves
Shaina McGrath
Erika Persson
Tracey Thompson

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Major Findings

I. Statistics

The Lifestyle Market Analyst published by the Standard Rate & Data Service is an informative statistics and marketing tool. The three sections are organized according to city, lifestyle interest, and magazine popularity.

The interesting findings from the following statistics is to be aware of not only who your user is, but also what are their other interests, familial status, life stage, and economic means. In addition, ensure that new adopters of technology have an interest to buy this, and that the people who have the interest to use the tool have the means or the technology background to adopt it. (See table pg 4)

II. Abilities & Needs of User (affect of technology on user)

Needs/Abilities of Children:

Step-by-step instructions are often needed for children ages 2 to 7 years of age to perform tasks. They tend to be egocentric and have an interest in the classifications and ordering of things. During this stage language develops. Children ages 7 to 11 years old are focused primarily on concrete operations. They look for accuracy and concrete descriptions of the world. During this phase children are able to comprehend multiple directions. Drawing and creating helps to focus the attention of a child in this age group. Children ages 11-18 are often focused on distinguished their own identity from their parents. They are able to reason without concrete models and are able to understand systems and time schedules.

Needs/Abilities of the Aged:

To accommodate the abilities of aging adults, the following factors must be taken into account: changes in hearing, speech, mobility, memory, perception, and health; as well as attitudes of the elderly toward technology. Hearing sensitivity towards speech drops .3 dB per year from age 25 to 60, then 1.4 dB per year from 80 to 95. Speech intelligibility varies less than five percent to age 60, but drops drastically after that point. Blindness rises to 3% of the population for individuals over 85; low vision rises to 33%. Mobility connected with grip and pressure decreases from age 30 onwards, however the rate of decrease is not constant. Short term memory declines after age 25, but long term memory remains relatively unchanged. The decrease in short term memory can also trigger a loss of confidence as elderly users may not be sure if they are following directions correctly. Age related diseases and disorders should also be taken into account. Many diseases can cause changes in ability as well as in care. Some elders may require more care than others or need assistance using tools. Attitudes of the elderly towards technology may be negative due to previous technologies that were ineffectual or did not address their needs.

Major Findings

III. Difference between Retirement Villages, Assisted Living, and Nursing Homes

My research revolved around the different needs and expectations of elders depending on their levels of independence and health. The three most popular types of living environments for elders appeal to very specific and different human needs.

Retirement Villages:

Seniors living in retirement villages are considered "residents." Retirement Villages focus primarily on a senior's emotional and mental needs. They are meant to enhance their independent lives by giving them a social support group, community and a worry-free lifestyle. To promote an active lifestyle and high self-esteem, independent retirement living offers programs such as game and billiard rooms, beauty salons, shopping malls, gardens and walking trails, libraries, and private dining rooms with gourmet meals. Seniors are also offered transportation, laundry and maid services, safety and peace of mind. Many seniors living in these environments pride themselves on making new friends and leaving behind lonely lifestyles. It allows them the opportunity to broaden their social circle beyond their children and immediate family. However, the involvement of the village in the individual's life ends there. For a person who's needs reach farther than just emotional and mental, either assisted living or a nursing home would be more appropriate.

Assisted Living:

In the middle of the spectrum between the emotional needs met by retirement homes and the physical needs met by nursing homes, are environments considered "Assisted Living." A person choosing to live in this environment would be someone who is still able to enjoy independence but needs extra assistance with daily activities such as taking medications, bathing, and managing other aspects of daily hygiene. Therapeutic Services are also a focus of assisted living areas, these can include anything from pain therapy to pet therapy. From my research, there seems to be a fairly equal balance of meeting emotional and physical needs yet not to the extreme of the other types of living. For example, where many retirement homes advertise "gourmet meals," assisted living focus more on "nourishing meals."

Nursing Homes:

In Nursing homes, the people become "patients" as opposed to "residents." The care they receive is based almost purely on physical needs such as illness, injuries, and functional disabilities. They focus their attention on therapies (physical, occupational, speech, respiratory), pharmacy services, adult day care, Alzheimer's and memory treatment. The setting is closely linked to a hospital setting and much of the care revolves around helping the patients with their medical equipment and medications.

Major Findings

IV. Factors affecting technology usage:

A number of variables need to be addressed when factoring the rate at which a technology will be accepted into society. These include individual factors such as age, anthropometrics, gender, personal/cultural background, disabilities, habits, and means; environmental factors (physical, social environment); task-related factors, and situational factors. Individual factors may be addressed by examining and responding to current technologies, user backgrounds, potential solutions to disabilities/age related impediments, cultural precedents, etc. Responding to environmental factors includes not only examining social and market environments, but physical environments. Factors such as lighting, temperature, climate, noise, etc should be considered. Task-related factors include needs based on a job or workflow a user undertakes. Situational factors include variations such as time, peer pressure, emergency situations, etc that are not easily measured otherwise.

V. Communication Methods

Communicating with Children:

When communicating with children it is very important to show that you are listening to help the child feel secure in conversation. Giving verbal and non-verbal clues to show you are paying attention will help the child learn the importance of paying attention to things you say later. Eye contact is also important.

Basic Relationship Qualities and Tools:

Relationships are strengthened through honesty, empathy and acceptance. The more honest and understanding communication is the stronger the trust between the communicating parties. Conversation involved more than one perspective and it often takes some work to satisfy the needs of both parties. Basic tools used for addressing needs during conversation include questions, attention getting methods, self-disclosures, methods of showing attention, advisement, reflected feeling, and interpretations. The way in which an individual regulates how they use these tools stems from three types of obstacles. The first is the inherited obstacle includes reflexes and automatic cultural talk. The second obstacle centers around the idea of taking and giving attention. The third is the obstacle of changing styles between individuals.

Major Findings

Grandchildren	User Personal Computer	Own a Cellular Phone	Attend Cultural/Arts Events	Dual Income Households, Child Age Under 13	
Top Ten Lifestyles Ranked by Index 1 Needlework/Knitting 2 Sewing 3 Military Veteran in Household 4 House Plants 5 Own a Vacation Home/Property 6 Bible/Devotional Reading 7 Entering Sweepstakes 8 Our Nation's Heritage 9 Walking for Health 10 Supports Health Charities	164 Travel for Business 161 Use an Apple/Macintosh 157 Use an IBM Compatible 142 Frequent Flyer 141 Own a Camcorder 139 Science/New Technology 138 Use a Cellular Phone 136 Electronics 136 Own a Vacation Home/Property 135 Snow Skiing Frequently	201 Travel for Business 193 Real Estate Investments 193 Own a Camcorder 175 Frequent Flyer 153 Own a Vacation Home/Property 149 Recreational Vehicles 143 Boating/Sailing 139 Use a Personal Computer 136 Snow Skiing Frequently 135 Wines	159 Fine Arts/Antiques 153 Community/Civic Activities 153 Foreign Travel 152 Career-Oriented Activities 150 Our Nation's Heritage 146 Wines 144 Current Affairs/Politics 143 Gourmet Cooking/Fine Foods 141 Fashion Clothing 137 Science/New Technology	291 Own a Camcorder 272 Home Video Games 245 Snow Skiing Frequently 227 Hunting/Shooting 227 Use a Personal Computer 218 Own a Cellular Phone 210 Buy Pre-Recorded Video 209 Camping/Hiking 202 Golf 195 Travel for Business	
Mean Income	\$32,360	\$56,715	\$56,521	\$46,548	
Home Ownership	121 Owner 60 Renter	108 Owner 85 Renter	111 Owner 78 Renter	96 Owner 07 Renter	
Ranking of the Top Ten Designated Market Areas	1 Alpena, MI 2 Joplin-Pittsburgh, MO-KS 3 Sherman-Ada, TX-OK 4 Ottumwa-Kirksville, IA-MO 5 Jonesboro, AR 6 Terre Haute, IN 7 Sioux City, IA 8 Quincy-Hannibal-Keokuk, IL-MC 9 St. Joseph, MO 10 Paducah-C-Gir-Har-MtV, KY-MO	137 Fairbanks, AK 136 Anchorage, AK 136 San Francisco-Oak-San Jo 133 Washington, DC 132 Charlottesville, VA 132 Monterey-Salinas, CA 131 Salt Lake City, UT 131 Juneau, AK 130 Seattle-Tacoma, WA 129 Denver, CO	140 Anchorage, AK 139 Chicago, IL 132 Honolulu, HI 130 Atlanta, GA 129 Detroit, MI 126 Lake Charles, LA 126 West Palm Beach-Ft. Pierce 123 Charlotte, NC 123 Las Vegas, NV 123 Sacramento-Stockton-Moo	133 Charlottesville, VA 132 San Francisco-Oak-San Jose, CA 130 Washington, DC 125 Monterey-Salinas, CA 124 Santa Barb-S Maria-S L Obis, C 122 New York, NY 119 Gainesville, FL 119 Salt Lake City, UT 117 Miami-Ft. Lauderdale, FL 117 Honolulu, HI	154 Rochester-Masson Cit. 144 Juneau, AK 141 Minneapolis-St. Paul, MN 135 Minot-Bismarck-Dickinson 133 Fairbanks, AK 130 Helena, MT 129 Green Bay-Appleton, WI 126 Sioux Falls, IA 126 Sioux Falls (Mitchell), SD 124 Omaha, NE

Design Opportunities

I. Designing for Users

- Understand and support the varying interests of the users in the network
- Support different economic means within the group
- Expected spending on technology/ communication devices
- Facilitate users' levels of technological experience
- Support the varying physical abilities of a multi-generational group

II. Designing for Elders

- Currently:
 - Retirement Villages focusing on social and emotional needs
 - Assisted Living finding a balance between emotional and physical needs
 - Nursing Homes focusing on the physical needs and limitations of patient
- Design that reaches beyond current standards for elders

III. Creating more personal communication

- cell phones and technology are more business-like

IV. Communication between parents and children

- Technology to enhance positive communications
- Instill morals, values, etc.

V. Communication among entire family

- facilitate communication among extended family
- overcoming long-distance relationships

Resources

Yellow Pages

- Retirement Villages
- Assisted Living
- Nursing Homes

Hospitals

- UPMC
- Health Requirements for consideration of different care levels

ACM & CHI

- Association for Computing Machinery. Great knowledge source for advances in user-technology research; specifically the CHI, UIST, and CSCW databases.

Statistics Book

- Lifestyle Market Analyst
- The Sourcebook of County Demographics
- Pennsylvania County Data Book, Allegheny County, 2000

Websites

www.familyresource.com – this web site provides information on developing family relationships, health concerns, financial assistance and lifestyle cultivation.

www.talkdoc.net – this web site discusses the value of effective communication and methods for improving average communication.

www.parentingtoolbox.com – this web site also provides information on developing family relationships, health concerns, financial assistance and lifestyle cultivation.

www.stakes.fi/include/ - this site aims to provide information for designers concerning the use of technology by disabled and aged users.

www.easyretire.com

Journals & Articles

- Basic and applied Psychology
- Cognitive Development
- Human-Computer Interaction, 2000
- Design Issues