

Ageism and Design: Connecting to Your Grandparents

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Design for an Aging Population is a new course offered at the Nova Scotia College of Art and Design (NSCAD University) in Halifax, Canada.ⁱ Midway through the course, teams of students were required to develop 'aging suits' that would simulate the physiological conditions associated with ageing. It was hoped that by developing these suits students would gain an understanding of the physical challenges older people may experience (i.e., mobility, strength, and vision loss). Up to that point, the class had researched the social, economic, psychological, and biological changes associated with aging and investigated elderly stereotypes and biases. After developing the 'aging suit' students would then conduct home assessments with their grandparents to identify design issues and problems. The rationale for the research was that in order to design better products, the students first had to develop a less stereotypical understanding of the elderly experience.

I assumed by this point the students would be well sensitized to the issues of the elderly. But it was during the presentations of their 'aging suits' that I realized how ingrained ageism is within our society. One group wanted to present their suit wearing an 'old man' latex mask that one buys at a joke shop. Their explanation, in all seriousness, was that it enhanced the feeling of being elderly. Another group, using that same principle but a different tactic, incorporated movement restriction devices into clothes they perceived the elderly wear. Their version of what the elderly wear was a drab wrinkled oversized suit jacket and pants one finds in the far reaches of a thrift store.



This episode highlighted for me the strong unconscious and implicit stereotyping in our society of elderly people and the need for more intergenerational contact to overcome those negative stereotypes. Stereotyping is manifested not only in our attitudes, actions, and language used to describe elderly people (i.e., codger, old biddy, doddering old dear, over the hill) but also in the look of the bulky unattractive products we design for them (i.e., orthopedic shoes). This paper will briefly define ageism, explore how ageism shows up in the products designed for the elderly, and then present techniques and strategies that were used in the course Design for an Aging Population to address ageism and develop contact with the elderly.

Ageism

The term *ageism*, stereotyping and discrimination based on age, was first coined in 1968 by Dr. Robert Butler. He referred to it as 'the new bigotry'.ⁱⁱ Unlike racism or sexism, ageism represents a prejudice against a group most of us will inevitably join. Ageism is one of the most widespread prejudices that cuts across age groups, genders, and cultures. It is also the one prejudice that often goes unchallenged.ⁱⁱⁱ Ageism manifests itself through widespread mistreatment and denial of medical care and services, workplace discrimination, physical (elder abuse), financial abuse, stereotypical and degrading images in media and marketing.^{iv} The continuing existence of offensive birthday and greeting cards mocking the mobility, intellect, and sex drive of our seniors is one notable sign of our society's prejudice.

An ongoing research effort at Harvard University, the University of Virginia, and University of Washington called Project Implicit allows people to determine their own prejudices with online tests.^v With over 2.2 million tests tabulated, researchers found that the largest prejudicial bias people had was not towards people of different race or sex but towards the elderly.^{vi} One of the Harvard researchers suggested that this strong bias is because age is associated with negative qualities, such as decreases in stature, power, physical agility, and cognitive ability.^{vii} In a survey I undertook at the beginning of the course Design for An Ageing Population, I asked students to write down three words that describe an elderly person. Almost three quarters of their responses had negative associations revolving around words like weak, slow, and feeble.^{viii}

The roots of ageism are very complex, but much of it can be found in the modernization associated with industrialized countries and the shift from traditional agrarian societies to industrial societies. This shift has resulted in a lower status of older people. For example, increased literacy rates have diminished the older persons' role as keepers of the oral traditions. Technical skills are now being valued above experience and many of today's technical advances are putting older people who have not mastered those skills out of work. People today are also more transient and are losing their connection to older relatives. Life expectancy has increased and institutionalized retirement is mandated, which removes older people from positions of importance. Another compelling suggestion for why ageism is so prevalent today is that it is linked to our fear of death.^{ix} In the past, old age was not associated with death because a large percentage of our society died before they reached old age. Add to this our culture's fixation on youth and beauty and all of this adds up to the image of elderly people as dependent, helpless, and unproductive.

People seem to have conflicting views of elderly people. On one hand, people will stereotype elderly people as warm (positive stereotype), but on the other hand they will view them as incompetent (negative stereotype). In fact, the more incompetent the elderly are perceived then the warmer they become. Conversely the more competent they are perceived, the less warm they are.^x This "doddering but dear" low competence/high warmth stereotype is now pancultural. An international Stereotype Content Model (SCM) study found that both individualistic cultures found in western societies and predominately Asian collectivist cultures all exhibited ageism stereotypes.^{xi}

Ageism is constantly reinforced by the images of elderly people found in our mass media. The influence of marketing and media on our contemporary culture is profound as these industries both reflect and inform how people live and think about themselves and perceive others. So how are elderly people presented in the mass media? A question to my class to name movies about elderly people was met with silence. Eventually they came up with only two: *Cocoon* (1987) and *Grumpy Old Men* (1993). The plot of *Grumpy Old Men* is explained in its stereotypical title while *Cocoon* is about a group of Florida retirees who are mysteriously rejuvenated by aliens when their retirement home swimming pool turns into a fountain of youth. When it was first released, the movie studio issued a marketing edict "No pictures of old people."^{xii}



The studio's edict 'no pictures of old people' seems to be the reality on television, movies, commercials, and advertisements in North America.^{xiii} There are very few images of elderly people in the media. One study found on American prime time television that only 2% of television characters are 65 or older (this is in a country where they make up over 12% of the population).^{xiv} Representation of older women is even worse across all medias (both sexism and ageism). Not only are the elderly not represented, but when they are they suffer from negative stereotyping in the media more than any other social group.^{xv}

Changes in the status of the elderly, our association with the elderly and death, and stereotypical mass media images (or no images of all) of elderly people in our culture has all contributed to lack of understanding, prejudice and the acceptance of that prejudice against this group. Becca Levy, a psychologist who studies the effects of age, says that many people start developing stereotypes about older people during childhood, reinforce them throughout adulthood, and then enter old age with attitudes toward their own age group as negative as the younger people's attitudes about them.^{xvi} Experts point out that the best way to combat ageist beliefs and behaviors, reverse elderly stereotypes, and restore a sense of esteem for older people is to have more intergenerational contact and more exposure to information about elderly people that is not stereotypical.^{xvii} Creating meaningful intergenerational contact and combating negative stereotypes was the underlying strategy in the development of the course Design for an Ageing Population.

Design and Ageism

So how does our unconscious and implicit stereotyping of elderly people show up in the products designed for them? Gretchen Anderson, a senior design analyst for Frog Design, who has been involved in designing medical products for an elderly market, says that if we view seniors through the products that are available to them, then they would be viewed as 'cranky, stupid, and tacky.' She goes on to say that looking at the products made for the elderly says much about ageist beliefs that product designers and manufacturers hold. Anderson cites orthopedic shoes as an example of something that reflects our attitudes about the elderly. The orthopedic shoe, big and bulky, has a style and a color that has not changed in over 40 years. As she says, "When we talk about needs of seniors there is a tendency to imagine someone whose eyesight, dexterity, and hearing are so impaired that they are incapable of having an experience; it is therefore assumed that they will make do with, or perhaps even prefer, a mechanistic, bulky product that smells like a hospital."^{xviii}

An assumption that elderly people will be happy to 'make do with' can be seen in the case of tennis balls and walkers. Many walkers have been fitted with split tennis balls on the bottom of the walker legs to allow it to slide easier over surfaces such as rugs. This simple but crude adaptation of the walker is a clear indication that the existing walker design is not meeting the needs of the elderly users. There is even a case of students at Western Washington University in the United States initiating the Walk Easy Project where they collected used tennis balls and went to local retirement homes and retrofitted walkers.^{xix} Considering the seriousness and cost of elderly people falling and the importance of mobility to their independence and well being, one wonders why walkers are not addressing this design issue? Current design attempts to address this need (i.e., mobility balls) are merely add-on products that replace the existing green and yellow tennis balls with precut tennis balls of different colors and patterns. The design aesthetic is still a tennis ball attached to the legs of a walker.



A look at many products directed at the elderly, especially assisted aid products (i.e., walkers), reveals a focus on function rather than aesthetics. For example, aids such as walkers and bath safety equipment used in the home are usually metal tubing that has a design language that speaks of a medical device in a hospital as opposed to a piece of furniture or assistance aid for the home. A look at electronic products that require some manipulation of controls (i.e., phones) tend to reveal products that are overwhelmed by large buttons. The common design strategy seems to be one of making controls as big as possible. This may be a reflection of ageist beliefs, which leads us to assume that the elderly are so physically impaired and incapable that those large bulky controls and products that smell like a hospital are what they need and want.

One of my students fell into that 'smell of the hospital' design aesthetic in her initial development of an ambulatory/lifting belt. These types of products are assistance aids used by caregivers to lift and move mainly elderly patients. She identified that current devices were unsafe and often slipped. Her initial prototype was a belt with a number of innovations such as straps to go under the crotch section making the act of lifting and moving elderly people safer. This bulky harness like device, not only screamed 'look at me I'm feeble', but also neglected to address issues of dignity. For example, the use of straps between the legs would be a problem for an elderly woman wearing a dress. One wonders whether these issues would have been identified earlier if the designer were developing it for another age group?

In the further development of her product, issues of dignity and aesthetics were constantly discussed so that the eventual prototype was a dramatic departure. The bulky belt was replaced by a slim vest that was easier to put on, looked better, worked better, and encouraged proper lifting techniques for the caregiver. The product had moved from the language of a medical product to that of personal body equipment. The resulting design received the Innovation Award at the 2006 JCI Outstanding Young Canadians Awards. This student and her lifting vest ended up being profiled on the cover of the Canadian *Financial Post Business* magazine. The cover story titled "The Next Wave: The Boomer Effect" had the ad line 'In a few

short years, hordes of retired, ageing baby boomers will reshape society one more time. Certain types of people will thrive. Margot Durling is one of them^{xx}.

This business magazine story gives an insight into what will eventually drive the change in the design of products for the elderly. The article states that just as designers and manufacturers are realizing that older consumers want better functionality for the products they use, they now have to get used to the fact that boomers (born from 1947–1967) also want products that look good. “Previous generations of older consumers may have been satisfied with plain products. The Boomers are not”.^{xxi}



This demographic change is already driving the redesigns of existing products as even orthopedic shoes are now starting to be developed to be more hip and stylish for the boomers^{xxii}. Many products are now being rethought in terms of the context of the aging population. Boeing is looking at redesigning their plane interiors to address the needs of a huge growth in boomer retirees flying.^{xxiii} Designer Deborah Alder redesigned the standard pharmacy pill bottle after her grandmother accidentally swallowed pills meant for her grandfather.^{xxiv} The ClearRx pill bottles, now available through Target stores in the United States, involved not only change in the shape of the bottle and also in the information presented on the bottle. All of these changes made it easier for seniors to use.

The designer Michael Graves started to address ageing and disability issues after a 2003 sinus infection left him paralyzed from the waste down. He turned his whimsical style to designing bath safety equipment, mobility equipment, and aids to daily living. His use of lighter and brighter colors both functioned as important signifiers for product use for seniors with failing eyesight and as a way to move the products away a stereotypical hospital design aesthetic to that of home furniture that is meant to assist you.^{xxv}

Alder and Graves are examples of designers developing products that meet the needs of the elderly and that don't reflect that, 'mechanistic, bulky, smells like a hospital look'. Overall, the majority of products produced to meet the needs of the elderly still reflect what designers and manufacturers think the elderly are based on society's stereotypes and prejudices. This reflection can be best expressed by the existence of gorilla-sized orthopedic shoes that have been in the marketplace for so many years or in the acceptance of letting our seniors make do with having to use tennis balls stuck on the end of their walkers as a safety feature.

The ageing of the baby boomer demographic is starting to influence the design of products and it would be difficult to imagine them accepting the tennis ball solution that the pre–World War II generations have accepted. To what degree designs will change in the coming years is difficult to determine. It may involve some categories of products more than others. It may be determined by the senior's health, age, income or even issues associated with who purchases the products. For example, is the senior purchasing them, is it family members, is it caregivers, or is it institutions? If other people are making those design and purchasing decisions for the elderly, and their decisions are reflecting ageist beliefs, then the products will keep reflecting society's negative prejudices. Design has the potential to address ageism issues and develop designers that are not perpetuating society's prejudices and negative stereotypes through their designs.

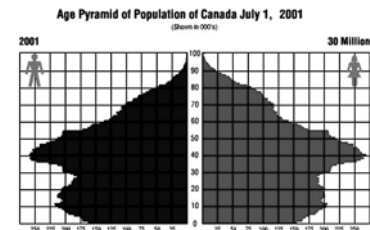
Designing for an Aging Population

Design for an Aging Population is a studio course in the newly developed product design program at NSCAD University in Halifax, Canada. The course was developed in response to the regions ageing population and the research capabilities within Halifax, which has a very large concentration of medical and gerontology research in Canada. The objective of the class was to explore issues related to designing for an ageing population and help the students develop a more empathetic and better understanding of the elderly experience from which to develop better products. The following section of the paper outlines some of the strategies used to reach that objective.

The course was structured around intergenerational contact between the students and their grandparents. This contact was developed by having the students create profiles of their grandparents, understand some of the physiological changes their grandparents may experience, and then identify problems their grandparents have in their day-to-day activities. The main challenges involved in developing and teaching this course involved engaging students in a subject that they may not perceive as very interesting. Many design students and classes are focused on creating 'hip' products aimed at a youth culture. Additionally, how do you connect students to an age group they have very little understanding of and interaction with?

Engaging the students

The course was presented to the students as a personal and professional design opportunity. For example, it was framed as an opportunity to design something to help their Grandparents. This focus leveraged one of the strongest, mostly positive, and possibly only interaction students have with an elderly person. At a professional level, the course was presented as an opportunity to understand design issues for a growing and very powerful segment of our society. This was underscored by showing Statistics Canada animated gif images of the baby boom bulge moving up the Canadian Population pyramid chart^{xxvi}, having them read sections of demographer David Foot's *Boom, Bust and Echo: How to profit from the coming demographic shift*, and displaying a Canadian business magazine (Financial Post Business, Oct. 2006) cover story of just graduated NSCAD design student (Margot Durling) who is designing for this age group.



The design issues were also presented in the larger context of 'universal design', 'inclusive design' 'design for all' and 'transgenerational design'.^{xxvii} Deborah Alder's pill bottle for the American retail chain Target and Oxo Good Grips were highlighted as these types of designs. The topic was framed around the issue of: designing for the elderly results in products that are easier for everyone to use—it is just good design!

Addressing stereotypes

There were a number of strategies to help connect the students to an age group that they have very little understanding of, or interaction with. The first stage was addressing stereotypical images of the elderly. Students did an in class survey of their perceptions of elderly people. The results, overwhelmingly negative, were discussed. Research such as *This Old Stereotype: The persuasiveness and persistence of the elderly stereotype* was read to understand ageism. Media images and lack of media images of the elderly were also discussed and a movie *The Company of Strangers* (1990), a semidocumentary/semifiction film, which gives a more realistic view of the elderly experience, was viewed. The students then created character profiles of their Grandparents outlining support networks, activities and health issues. They talked with both their Grandparents and parents to develop these profiles. Subgroups within the elderly were identified such as the "young-old" (65–74), middle-old (75–84) and oldest-old (85+) or frail. The objective of all of these activities was to develop a broader less stereotypical view of the elderly and start to understand that this was a diverse group and that an 85-year-old may have no more in common with a 65-year-old than a 45-year-old has with a 25-year-old

Aging suits

The next stage of the course was helping the students develop a better understanding of some of the physical changes that happens during the ageing process. The students first did research and created ageing profiles that detailed the physiological changes associated with aging. They then took that information and tried to physically simulate those changes in a suit that they could wear. The result was a low tech and incredibly effective way at generating empathy and allowing students to directly experience the functional losses associated with ageing. This aging suit provided immediate feedback into what it may feel like to be older and gave the students added insight into some of the difficulties the elderly may experience when using a product.

Through these suits, students addressed issues such as a decrease in mobility, flexibility and strength. Students added various types of restrictors to joints. Special gloves were developed to simulate decreasing ability to manipulate fine controls and degenerative diseases such as arthritis. One group even incorporated a vibrator into one of their gloves to simulate hand tremors. Harness systems were developed to simulate curvature of spine and the redistribution of weight as one ages. In conjunction with the Canadian National Institute of the Blind's (CNIB), students went to the local drug store and did various senior typical activities using the suits and CNIB low-vision goggles. The aging suits were a very successful empathy exercise because in order for the students to physically simulate something such as arthritis, they had to explore that issue at a physical level. These suits became valuable reference points in the student's subsequent product design and development. As well, I could always refer back to the suits with "could you use this product wearing your ageing suit?" A drawback to the aging suits was that some of the simulated physical changes were taken to the extreme thereby reinforcing negative stereotypes.



Home assessments

After understanding what it physically feels like to be elderly, students then started to document problems that their Grandparents were having in their homes. Using the Canada Mortgage and Housing Corporation's Home Assessment Questionnaire guide students interviewed their Grandparents and documented all usability issues relating to their daily activities (i.e., dressing, bathing, meal preparation, cleaning, communications, and taking medicines).^{xxviii} For those students without Grandparents, senior clubs were contacted for members to act as surrogate Grandparents. Students also joined seniors and senior care online forums asking for help in identifying problems and issues seniors have in their home. These online forums were very successful as it was an easy (anonymous) way for students to make contact and get design information. The one drawback is that these forums became the main avenue for design information as opposed to contact with their grandparents during the development of their products.

Designing for the elderly

All the information gathered in the home assessments and in the online forums/groups allowed students to identify design problem areas and uncover new opportunities. For example, during assessments it was observed that a significant proportion of those assessed had pets. Subsequent research uncovered that elderly people that owned pets were much healthier than those that didn't own pets.^{xxix} Considering how valuable these pets were to their well-being, a unique opportunity presented itself to design products to allow the elderly to care properly for their pets. Other problems the students focused on were in the areas of bathing, eating, cleaning, remembering, and taking medication. The last half of the semester involved students designing everything from medical dispensing and memory aid systems, to eating and bathing aids, to kitty litters and dog bowls for the pets of the elderly.



All of the research and activities centered on developing a more intimate connection and understanding of the elderly led to the design of products that better reflected the elderly experience. For example, one student's home assessment of their 'surrogate grandparent' identified laundry baskets as a problem. In developing solutions to this problem the student was able to use this person in conjunction with senior online forums to help identify various design issues that guided the development of a laundry basket/system. These online and individual connections created valuable partnerships for the student and helped him identify issues such as use patterns and how often and how much laundry seniors do in a week. This had a direct

influence both on the design of the product and on the student's view of the elderly as valued members in the development of the product.

Conclusions

Responding to the needs of the elderly, whose growth and numbers will be unprecedented in human history, should be one of the most important and continuing issues for industrial designers. Considering these facts, there is very little research and information available to industrial designers on designing specifically for this demographic. There is almost nothing on the issue of how ageism affects design. Frog Design's Gretchen Anderson's comment about if we are what we use then elderly people would be viewed as 'cranky, stupid and tacky' is an unacceptable reflection of many of the products designed for the elderly.^{xxx} The issue of ageism and its reflection in the design of products is a very serious issue, as it not only perpetuates our view of them but their view of themselves. The example of the student wearing a latex old man mask for their presentation in the introduction of this paper is evident of the how ingrained ageist attitudes are in our society. As designers we need to get beyond that stereotypical mask.

This course received a substantial amount of media attention.^{xxxi} Although a lot of the attention had to do with the front end of the boomer generation in Canada turning sixty, there was also a realization that design can play a significant role in addressing quality of life issues for our senior population. This media attention was helpful in both highlighting the issue and convincing students of the value in designing for an ageing population. The spin-off from this class is that students have gotten more interested in this issue. For example, one group of students has proposed an independent studies project to look at airport design for the elderly. I am also constantly receiving links to articles on ageing issues from former students in the course.

The main benefit of the course was not in the media attention or products that were designed but in the intergenerational contact that was established with their grandparents. This type of contact is generally acknowledged as the best way for society to address ageist beliefs and behaviors, undo elderly stereotypes, and restore a sense of esteem for older people.^{xxxii} Because the family structure is one of the only places left in our society where one experiences intergenerational interactions; grandparents are a good place to start in establishing a connection. The student's research into their grandparent's lives helped present a richer, broader and less stereotypical view of the elderly and became a positive foundation from which to develop products. Ultimately, if we as designers and educators can start to develop these connections then this may lead to the design and development of products that present a more respectful, positive and truthful reflection of the elderly and their experience. It is through the development of these types of products that designers can change society's view of the elderly.

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