

THE ORGANIZATIONAL USE OF ONLINE STOCKPHOTOS: THE IMPACT OF REPRESENTING SENIOR CITIZENS AS ETERNALLY YOUTHFUL

Eugène Loos

*Utrecht University School of Governance
the Netherlands*

Abstract: *The digital divide due to age is declining quickly. But this does not necessarily mean that the willingness to use stock photos depicting older people accompanying digital information is the same among all senior citizens. Three research questions are at the core of this paper: (1) To which extent can various senior citizens (women and men, younger old and older old, living alone or together, full of vitality or fragile) identify with online stock photos of older people accompanying information about pensions, income, health and housing?, (2) Which are the connotations of the visual signs used in such stock photos? and (3) What are the policy implications for organizations aiming at offering digital information for a diverse group of senior citizens? The results of a Dutch study among 31 older adult are used to get insight into the ways they identify with stock photos. Finally, implications for research and society are sketched.*

Keywords: *identification, online stock photos, senior citizens, visual ageism.*



INTRODUCTION

In the Netherlands, the number of older people having access to the Internet has risen considerably within the last 5 years. The percentage of persons 65–75 years old having Internet access grew from 85.0% in 2013 to 94.8% in 2018; for persons 75 years old and older, these percentages rose from 48.7% in 2013 to 74.2% in 2018 (Statline/CBS, 2018). The so-called first digital divide between those who have access to digital media and those who do not, and the second digital divide between those who have the skills to use them and those who do not (Hargittai, 2001), are disappearing.

With the growing access and use of the Internet, senior citizens are being exposed to—and required to access—sites that use photos for various reasons, and many times those are stock photos. Such photos represent older people in many ways, and the organizations that use these photos select them to communicate with that target group. The point I would like to make in this paper is that, even though the first and second digital divides due to age are declining at a rapid pace in many countries, this does not necessarily mean that the appreciation for or willingness to use online stock photos depicting older people that accompanies digital information is the same among all senior citizens, even from the same country.

As people grow older, the psychological and physiological differences between them widen, a phenomenon that is labeled “aged heterogeneity” by gerontologists (Nelson & Dannefer, 1992; Robnett & Chop, 2018; Stone, Lin, Dannefer & Kelley-Moore, 2017), and that is often overlooked in society and science. Loos (2013) and Loos et al. (2017) showed that organizations often represent older people as a homogeneous group and do not consider the differences related to age, civil status, and health condition on their Web sites. For this reason, the following three research questions are at the core of this paper:

- To what extent can various senior citizens (women and men, younger old and older old, living together or alone, full of vitality or fragile) identify with online stock photos of older people accompanying information about pensions, income, health and housing?
- What are their connotations of the visual signs used in such stock photos?
- What are the policy implications for organizations aiming at offering digital information for a diverse group of senior citizens?

To define the concept of identification, I followed Ashforth & Mael (1989, pp. 20–21), who make use of the social identity theory. According to their description of this theory, people tend to classify themselves and others into various social categories, such as organizational membership, religious affiliation, gender, and age cohort (Tajfel & Turner, 1985), and they argued that

Social classification serves two functions. First, it cognitively segments and orders the social environment, providing an individual with a systematic means of defining others. ... Second, social classification enables an individual to locate or define him- or herself in the social environment. According to SIT, an individual’s self-concept is comprised of [*sic*] a personal identity encompassing idiosyncratic characteristics (e.g., bodily attributes, abilities, psychological traits, interests) and a social identity encompassing salient group classifications. (Ashforth & Mael, 1989, pp. 20–21)

In this paper, I focus on people's identification with segments within the older age cohort by paying attention to the role of idiosyncratic characteristics (i.e., visual signs referring to sex, age, living together or alone, one's [self-reported] vitality/fragility). To analyze these visual signs, I use a visual semiotic approach (Harrison, 2003; Kress & Van Leeuwen, 1996). To answer the three research questions above, I first review the literature on visual representation and discuss the origins of the trend toward positive (i.e., well-being, vitality) visual representation of older people. This will be followed by an explanation of my explorative qualitative empirical study conducted in the Netherlands among 31 senior citizens who were exposed to a variety of stock photos depicting older people used on the site of the Dutch association for older people (ANBO) in spring 2018. Finally, I will introduce the concept of designing for diversity approach as a fruitful way toward an organizational digital information policy for a diverse group of senior citizens. I argue that organizations can use a mix of photos in digital information sources that do justice to the diversity within the older population group by adopting the principle of designing for dynamic diversity. I conclude with a sketch of implications for research and society.

STUDIES ON VISUAL REPRESENTATION

Portrayals of certain social groups in society, as well as the type of characteristics depicted in those portrayals, matter in societies that value social justice and power balance. These representations, visual and otherwise, can reinforce stereotype formation. Encountering such stereotypes in the media can negatively impact the self-esteem, health status, physical well-being, and cognitive performance of older people (Levy, Slade & Kasl, 2002; Levy, Slade, Kunkel & Kasl, 2002). As Williams, Martins, Consalvo and Ivory (2009) found, "groups that appear more often in the media are more 'vital' and enjoy better status and power in daily life" (p. 818).

So one fundamental question is, will those who cannot identify with the older persons depicted in such pictures turn away from the presenters of the related digital information and, as a consequence, not use it? Or do those who cannot identify with such pictures feel attracted by them (e.g., would images of healthy older people attract older people who are not healthy themselves)? An explorative empirical study conducted by Loos (2013) involved collecting all images of older people on the Web sites of the three senior citizens' organizations in the Netherlands to get insight into the ways these organizations visually represent their members. The results indicated that depicting older people together and older people alone appeared to be a reasonable balanced representation on two Web sites (53.7% vs. 44.3%, respectively), while, on the third Web site, older people alone were a minority (30%). The most common category of pictures on that third Web site was that of an older woman and man as a couple (25%), while on the other two Web sites, it was a man alone (28% and 25%, respectively). On all three Web sites, the older people were unanimously still enjoying their "third age" (e.g., playing sports or leisurely cycling; Laslett, 1991; Loos, 2013); however, the "fourth age," characterized by severe health problems and inactivity was absent (Loos, 2013).¹ Loos et al. (2017) conducted an empirical study examining the ways older people are visually represented on Web sites of organizations for older people in seven European countries (Finland, UK, the Netherlands, Spain, Italy, Poland, & Romania) while adopting an analytical approach based on visual content analysis. The results clearly demonstrated that, in all seven countries, older people were visually represented most

often as healthy and active, reflecting a dominant “aging well” discourse (Chapman, 2005; Loos, 2013; Orpin, Walker & Boyer, 2013) in Europe. This perspective is characterized by pictures of eternally youthful, interactive older people that do not represent large groups of senior citizens who have either bad health, live alone, or both. Before presenting my empirical study examining the impact of such positive stock photos, I first explicate how this trend toward a positive visual media representation of older people can be explained.

ORIGINS OF THE TREND TOWARD POSITIVE VISUAL REPRESENTATION OF OLDER PEOPLE

Loos and Ivan (2018) showed in their literature review of studies conducted in the last 40 years in Europe and North America that the turning point of positive visual representations of older people in print, television advertisements, and television programs occurred within the last few decades. One possible interpretation is to see this as a trend toward the right direction, away from a negative, stigmatized way to represent older people. Loos and Ivan (2018), though, coined the notion of “visual ageism” to describe this phenomenon as “the social practice of visually underrepresenting older people or misrepresenting them in a prejudiced way” (p. 164).

Another possible explanation for this clear trend toward positive representations of older people is that marketers realized that many older people represent a wealthy and healthy target group (Loos & Ekström, 2014). Knowing that most people want to stay young and vital, the advertising industry began using images invoking eternal youth. Thus, the concern of one’s own mortality is tempered by the concept of the third age. It is no surprise that the human desire to be eternally young is commercially exploited; the narrative of eternal youth has deep historical roots and taps into the universal yearning to live a long and healthy life, as presented in artwork (see Figure 1). The concept of the third age also enables public authorities to combine positive messages (i.e., most citizens will live longer in good health) with explicit warnings (e.g., each citizen is personally responsible for compensating for the loss of resources in later life; Loos, 2013). Katz (2009) argued that

much gerontological research is increasingly affiliated with governmental projects to responsabilize a new senior citizenry to care for itself in the wake of the neoliberal programs that divest Western welfare states of their health, educational, and domestic life course commitments and extend their political power to new areas of micro-social management and community affairs. (p. 99)

Loos and Ivan (2018, p. 169) argued that the act of visually representing older people in a positive way is embedded in a larger discourse of successful aging (e.g., Rowe & Kahn, 1997, 2015; Ylänne, 2015) and active aging (e.g., World Health Organization [WHO], 2014), a discourse highlighting “the avoidance of disease and disability, the maintenance of high physical and cognitive function, and sustained engagement in social and productive activities” (Rowe & Kahn, 1997, p. 433)

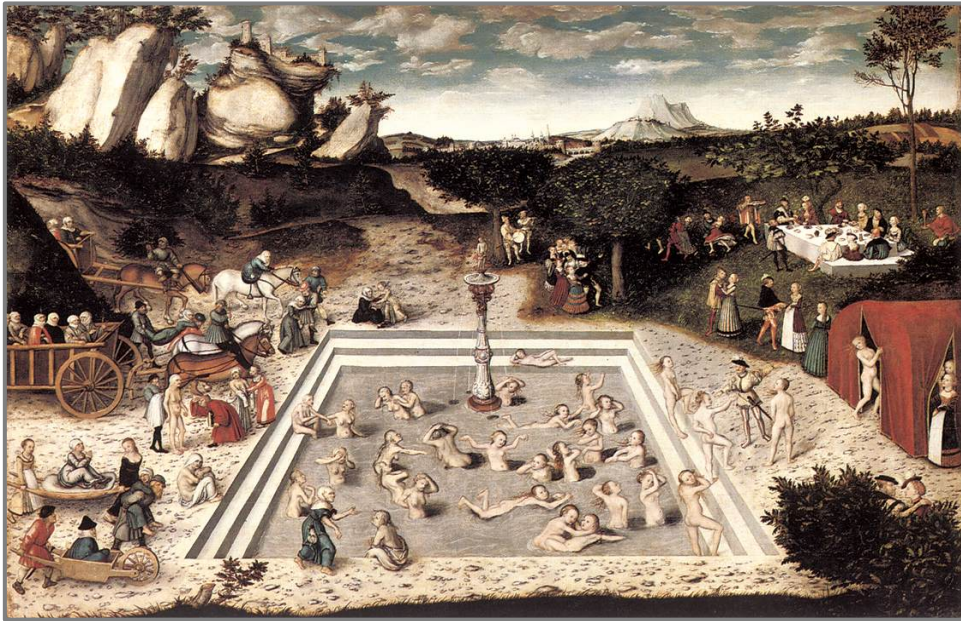


Figure 1. Fountain of Youth (1546) by Lucas Cranach, the Elder.
Reprint permission by Staatliche Museen Berlin.²

On the one hand, the promotion of optimistic ideas associated with well-being in later life may have positive consequences, such as people adopting an active lifestyle, maintaining functional health, and enhancing one's capacities. These, with the individual's fiscal responsibility and civic engagement, will result in the reduction of older people's dependence on public system provisions (Neilson, 2006). On the other hand, numerous negative consequences also can result, which are debated largely in the current literature (e.g., Calasanti & King, 2007; Coupland, 2009; Neilson, 2006), such as the marginalization of the process of growing old and the societal exclusion of older people (Loos et al., 2017).

If one were to interpret the popular discursive formation in a critical way, one could even say that older people, especially those in the so-called fourth age, are not able to meet the obligation imposed on them by the dominant successfully aging discourse. In such a discourse, the argumentation typically is as follows: People's increased life expectancy means that they will spend a longer time in the third age, characterized by well-being, while their fourth age will be reduced to a short, painful descent into decay (Loos, 2013). It is striking that, in the Netherlands, for example, public authorities make use of the concept of the third age: The third age receives ample mention in policy memorandums, while the fourth age is quietly ignored (Loos, 2012).

METHOD

In spring 2018, I selected five sets of stock photos (Sets 1 to 5, below) that were used on the Web site of ANBO, the Dutch association for older people. The stock photos depict a variety of older people (age, sex, living arrangements, vitality) reflecting their current life situation and accompany information about pensions, income, health and housing, important issues for older people.

Then, I interviewed a diverse group of 31 Dutch senior citizens (age range 50–59, 60–69, 70–79 and 80+ [see more information below], women and men, living together or alone, self-reported degree of vitality) to examine the extent to which they identified with various kinds of stock photos. Respondents were recruited from the family and friends of this researcher and his research assistant (a master’s student) as well as people at a public library. As I wanted the respondents to express their opinions as freely as possible, I did not audio-record their answers but transcribed their explanations for later analysis. Table 1 gives an overview of the subcategories composing this group. The respondents saw all the photos in each set simultaneously before proceeding to next set. All respondents were familiar with the use of the type of Web site described as the framing for the photos: a site dealing with pensions, income, health, or housing. The head of department of the author’s institute gave his ethical approval and informed consent was used so all respondents were aware of the study’s aim and their right to stop their collaboration at any time.

Although estimating a person’s age from a photo is difficult, I have roughly divided the people in the photos into two groups based on the color of their hair (gray or not gray) and the visible wrinkles on their skin (wrinkles or no wrinkles), the former considered as older old (80+ years) and the latter as younger old (50–59, 60–69, 70–79)—a distinction I needed to investigate if there is a difference between the ways younger old and older old people identify with pictures.

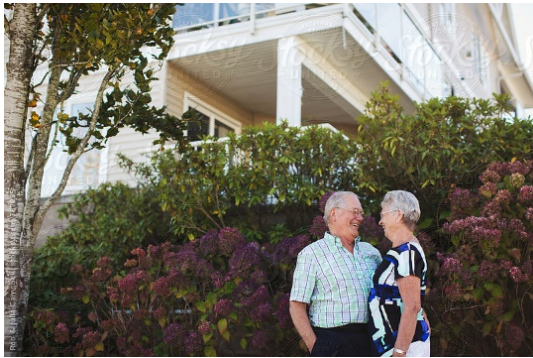
I asked the respondents to imagine that they were looking for information about pensions, income, health, or housing information on a Web site. Then, I asked them to choose, from each set, the stock photo they most identified with and to explain why they selected that photo. As mentioned in my introduction, I aimed to answer the following three research questions:

- To what extent can various senior citizens (women and men, younger old and older old, living together or alone, full of vitality or fragile) identify with online stock photos of older people accompanying information about pensions, income, health and housing?
- What are their connotations of the visual signs used in such stock photos?
- What are the policy implications for organizations aiming at offering digital information for a diverse group of senior citizens?

During the empirical research, I noted the respondents’ favorite (in the sense of identification) stock photos and their explanations. Images can be analyzed in various ways, for example, by focusing on the cognitive, social, or emotional effects or consequences for the respondents. Because studies in the field of visualization often focus on “cognitive effect and neglect its

Table 1. Number of Respondents for Age Groups, Sex, Living Together/Alone, Self-Reported Vitality (Total $N = 31$).

| Age groups | Sex | Living Together/Alone | Self-reported Vitality |
|------------|------------|-----------------------|------------------------|
| 50–59: 6 | Female: 16 | Together: 20 | + 17 |
| 60–69: 11 | Male: 15 | Alone: 11 | + - 11 |
| 70–79: 8 | | | - 3 |
| 80+: 6 | | | |



(P1)³



(P2)



(P3)

Set 1. This set comprises three photos to examine if older old respondents and those living together would choose P1 (older old 80+) and if younger old respondents (50–59, 60–69, 70–79) would choose P2 or P3, and whether the younger old persons would choose photo P2 with the foreign background (hills, a holiday setting).



(P4)



(P5)

Set 2. This set comprises two photos to examine the role of sex: Do female respondents identify with depicted women and male respondents with depicted men?



(P6)



(P7)

Set 3. This set also comprises two photos to examine the role of sex.



(P8)⁴



(P9)



(P10)

Set 4. This set comprises three photos to examine if living together or alone would affect the choice between P8 versus P9 and P10.



(P11)⁵



(P12)



(P13)

Set 5. This set comprises three photos to examine the role of the different categories (age, sex, living together or alone, degree of self-reported vitality) for the choice of a favorite photo.

social and emotional consequences” (Bresciani & Eppler, 2015, p. 8), I paid special attention to the social and emotional connotations of the visual signs, following a visual social semiotics approach (Harrison, 2003; Kress & Van Leeuwen, 1996; Van Leeuwen & Jewitt, 2001). This field of study was defined by Jewitt and Oyama (2001, p. 134) as “the description of semiotic resources, what can be said and done with images (and other means of communication) and how the things people say and do with images can be interpreted.” I define social connotations as the meaning evoked by signs related to other persons and the emotional connotations as the feelings the signs evoke.

PRESENTATION AND DISCUSSION OF THE RESULTS

As a start, I present an overview of the favorite stock photo gathered from the respondents’ comments of identifying with the image. Table 2 presents each set of photos with the favorite

noted in bold. I discuss each set of stock photos in the light of the overall score for the 31 older respondents, and then the main differences, if any, related to the different categories (age, sex, living together or alone, degree of self-reported vitality). Respondents' explanations for their favorite stock photo are presented by quotations in italics.

The marginally preferred (most self-identifiable) stock photo in Set 1 for the 31 respondents was P2 (younger old couple near a car with hills in the background, suggesting a holiday setting that does not reflect the Netherlands): 38%. *Enjoying life together* was the expression frequently used, an explicitly positive emotion. Multiple comments regarding *the beautiful landscape in the background* also provided a visual sign with positive connotations. But looking at the age categories of our respondents, there was one clear exception: All respondents 80+ and older selected P1 (older old couple before an apartment), frequently commenting that the image reflected a *happy couple, living nicely*. This contrasted with younger old respondents who did not identify at all with this stock photo, commenting that the people depicted were *much too old; I am not so old yet*. Additionally, 67% of those who reported their lack of vitality chose P1 as their favorite. This could be due to the fact that the older old couple is standing in front of an apartment building, a housing situation they can positively identify with (i.e., more accessible because of fewer barriers than in a house). Another important exception was the category of younger older persons who favored P2 (a younger old couple near a car with hills in the background) and, to a lesser extent P3 (a younger old couple sitting in a park), which could be due to the setting evoking holidays/relaxation, and leading to positive emotional connotations such as *enjoying life together in a nice landscape* (P2) and *cozy, together* (P3). Finally, it is interesting that only a small percentage of older people living alone (17%) chose P2 as their favorite photo, which could be due to the fact that they do not identify with a traditional couple living together (*too romantic; for me that's something from the past*).

For Set 2, the favorite stock photo of the 31 respondents was clearly P5 (63%; an older old man sitting next to a young man). Respondents explained this by stating that this is a *father-son relationship, a good relationship, partners on equal terms*; these are clearly social connotations. Within the categories of older men and older people living alone, P5 also was clearly the favorite (60% and 91%, respectively), compared to P4 (a sitting older old woman accompanied

Table 2. Favorite Stock Photos of All Respondents (Highest % in Bold).

| | % of all respondents in favor of a stock photo | | |
|-------|--|-------------------------|--------------------------|
| Set 1 | P1 31% | P2 38% | P3 31% |
| Set 2 | P4 37% | P5 63% | |
| Set 3 | P6 52% | P7 48% | |
| Set 4 | P8 18% | P9 36% | P10 46% |
| Set 5 | P11 24% | P12 28% | P13 48% |

by young woman, laughing together). Apparently older men identify easier with persons of the same sex, represented as having a bond with each other (eye contact, social connotation). One respondent stated: *This photo reminds me of my own father who passed away; it's a positive memory.* For older women, there was almost no difference between P4 and P5.

For Set 3, no clear favorite stock photo emerged from the respondents. In this set of photos, the category of older men chose P6 (60%; older old woman accompanied by young woman in a familiar setting), with comments such as *older woman gets help, they enjoy life together, authentic, faces visible.* This compares to P7 (older old man accompanied by young man with a hand on the shoulder of the older one). However, 63% of older women chose P7. This might be due to the social caring connotation related to the opposite sex (i.e., hand of the younger man on shoulder of the older one) that led some to comments about the *social connection, authentic, love.*

For Set 4, older people living alone chose P9 (an older man; 45%) and P10 (an older woman; 45%) as their favorite stock photo, and not P8 (an older couple sitting in a park; only 10%). One of the reasons mentioned by older people living alone was that the younger old couple in P8 *look like they found each other on Tinder.*

The favorite stock photo in Set 5 for the 31 respondents clearly was P13 (48%; younger old couple at a beach with a cocktail). This image evoked comments such as *holiday, enjoying life, relaxation, enjoying life together.* There were no differences related to the different categories (age, sex, living alone or together, degree of self-related vitality) to which the respondents belonged. Apparently, many older people feel positive emotions when viewing a couple in a holiday setting. This could be a scenario that they envision for themselves. See also Nichols and Schumann (2012) about aspirational models in marketing communications.

CONCLUSIONS

Which conclusions can be drawn from the explorative qualitative empirical study I conducted? The conclusions will be presented below for each of the research questions.

To what extent can various senior citizens (women and men, younger old and older old, living together or alone, full of vitality or fragile) identify with online stock photos of older people accompanying information about pensions, income, health and housing?

In general, older people identify with stock photos that relate to their life stage, for example, where and how they live and relax. A good example is P1, depicting an older old couple in front of an apartment. This image was the favorite of respondents 80+ and of those who reported a lack in their vitality.

It is interesting to observe that there was only one stock photo (P13, younger old couple drinking a cocktail at the beach) that most older people favored, no matter which subcategories of age, sex, living arrangements or vitality reflected their current life situation. The findings provide no clear pattern for the way women and men identify with persons from the same or other sex. Living alone played a role especially for P2 (younger old couple near a car with hills in the background): Almost no older adult who lived alone chose P2 as a

favorite (in the sense of identification), which could be due to the fact that they do not identify with a traditional couple living together.

It is also remarkable to see that older people living alone chose P9 (an older man; 45%) and P10 (an older woman; 45%) as their favorite stock photo, and not P8 (an older couple sitting in a park; only 10%).

What are their connotations of the visual signs used in such stock photos?

Signs related to the setting seem to play a role as they were perceived as related to the life stage that the older persons are in. So, an apartment as background invokes positive emotions by respondents aged 80+ and by those who report decreased vitality. This could be an accessibility issue, less barriers in an apartment than in a house, or perhaps the point of aging when older people look for simplicity in life. Another example is that a holiday setting (beach and cocktails or a landscape distinct from their home country) seems to have positive emotional connotations for a lot of older people. Social connotations seem to play a role for older men, who identified more often with photos depicting persons as having a bond with each other, regardless of their sex. Older women, on the other hand, chose as a favorite a stock photo with the focus on a social caring connotation, even if that related to the other sex. Their comments demonstrated this: *social connection, authentic, love*.

What are the policy implications for organizations aiming at offering digital information for a diverse group of senior citizens?

Older people's identification with others of their generation in pictures representing them offers much potential for research. In this study, I conducted an explorative and qualitative study (i.e., a visual semiotic analysis) that aimed at generating preliminary insights into the different ways older respondents make sense of stock photos on Web sites. Organizations have a clear interest in the outcomes of this research in that their choice of images do not need to represent simply space fillers or an attractive Web page design. This research demonstrates that older target groups can also identify with the persons depicted in stock photos accompanying the products and services organizations present on their Web sites. If these organizations wish to be as inclusive as possible, they should take into account the diversity of ways the heterogeneous group of older people identify with images in general and stock photos in particular.

I agree with Cole who already in 1992 took a critical stance toward positive images of old age, a plea that is still valid today for balanced visual representation, avoiding representing older people uniquely as eternally youthful senior citizens. This might help them to identify with depicted older people in stock photos that resemble themselves or the situation in which they live as much as possible, so they would be willing to use this information instead of turning away from it.

I have no desire to denigrate the accomplishments of science and medicine or to return to the "good old days" of Calvinism when people were reconciled to the vicissitudes of aging and death by virtue of faith. ... For all its accomplishments, the cultural hegemony of science intensifies the pathos of aging in a society devoted to the limitless pursuit of individual health and wealth. In the last twenty years, we have witnessed an important

social movement aimed at eliminating age discrimination and at generating new positive images of old age. But this recent attack on ageism—as valuable as it is—has yet to confront the de-meaning of aging rooted in modern culture’s relentless hostility toward decay and dependency. (Cole, 1992, p. xxvi).

Multiple approaches exist to help organizations to pay attention to aged heterogeneity on their Web sites. One particularly fruitful approach is using a designing for dynamic diversity approach for an organizational digital information policy for a diverse group of senior citizens. This approach, developed by Gregor, Newell and Zajicek (2002, p. 152), originally aimed at enabling designers of computing systems to be aware of “the decline in the cognitive, physical and sensory function” of older people. However, Gregor et al.’s insights also can be used to underscore the need to visually represent older people in a dynamically diversified way by taking into account differences related to age, sex, housing situation (e.g., living together or alone), and the degree of vitality. So, organizations could use the research design and insights from this study to set up focus groups (Morgan, 1996) that would help them understand diversity in identification before putting stock photos on their Web sites. After such focus groups, individual interviews could be conducted and observations be made regarding how such stock photos affect senior citizens by making use of the visual semiotic research tool focusing on older people’s connotations. Once the results are known, Web designers could put a mixture of photos on their organization’s site that takes into account the various ways a diverse group of older people identifies with such pictures, and thus the accompanying products and services the older people need.

IMPLICATIONS FOR RESEARCH AND SOCIETY

This explorative qualitative empirical study aimed at offering insight into the role of online stock photos in the identification processes of a diverse group of senior citizens. The methods used to collect and analyze the data could be used for future quantitative studies in this field and expanded to include international context. This might lead to a better information policy that takes into account the significance of visual identification when providing services for senior citizens.

As noted above, a variety of research methods are available for organizational Web designers to consciously address visually the diversity of senior citizens represented in the stock photographs (or any other images) when deciding the design elements of their site. When in doubt, employing a designing for dynamic diversity approach would be most beneficial. Using focus groups to test the salience, valence, and potency of thoughts and feelings of senior citizen informants regarding their identification with options under consideration by the designer would be an essential step in the designer’s well-informed decisions on inclusive images.

While the above implications are important for organizations and their designers, the importance of these images goes beyond how senior citizens identify with the images of their age cohort on Web pages. These images also can influence and impact younger viewers in their impressions of old age and old people. In societies that emphasize equality and full, active citizenship in all stages of adult life, complete and accurate visual representations of senior citizens benefits the society as a whole.

ENDNOTES

1. Reprint permission by Staatliche Museen Berlin.
2. The third age is a long period of well-being (Laslett, 1999; Loos, 2013) that precedes the concept of the fourth age, a short, painful descent into decay (Higgs & Gillear, 2015; Loos, 2013).
3. ANBO, the Dutch association for older people, bought the stock photos from <https://www.istockphoto.com/nl>, <https://www.shutterstock.com/home> and <https://www.nationalebeeldbank.nl/#0> and allowed me to use them for this paper. Despite several attempts, the photographers of these images could not be determined at this time.
4. This same photo was P3 in Set 1, but this time I used this photo to examine if living together or alone would affect the choice of the most identifiable photo.
5. This set includes two photos used previously as P6 and P7 in Set 3. However, this time I used these two photos to contrast them with P13 to examine also the role of age (older old 80+) versus younger old (50–59, 60–69, 70–79), the situation of living together or alone, and/or how the holiday setting would affect the choice of the most identifiable photo.

REFERENCES

- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, *14*(1), 20–39.
- Bresciani, S., & Eppler, M. J. (2015). The pitfalls of visual representations: A review and classification of common errors made while designing and interpreting visualizations. *Sage Open*, October–December, 1–14. <https://doi.org/10.1177/2158244015611451>
- Calasanti, T., & King, N. (2007). “Beware of the estrogen assault”: Ideals of old manhood in anti-aging advertisements. *Journal of Aging Studies*, *21*(4), 357–368.
- Chapman, S. A. (2005). Theorizing about aging well: Constructing a narrative. *Canadian Journal on Aging/La Revue Canadienne du Vieillessement*, *24*(1), 9–18.
- Cole, T. R. (1992). *The journey of life: A cultural history of aging in America*. Cambridge, UK: CUP.
- Coupland, J. (2009). Time, the body and the reversibility of ageing: Commodifying the decade. *Ageing and Society*, *29*(6), 953–976.
- Gregor, P., Newell, A. F., & Zajicek, M. (2002). Designing for dynamic diversity: Interfaces for older people. In J. A. Jacko (Ed.), *ASSETS 2002: The Fifth International ACM Conference on Assistive Technologies* (pp. 151–156). Edinburgh, Scotland: ACM.
- Hall, S., Evans, H., & Nixon, S. (Eds.). (2013). *Representation: Cultural representations and signifying practices*. Thousand Oaks, CA, USA: Sage.
- Hargittai, E. (2001, October). Second-level digital divide: Mapping differences in people’s online skills. Paper presented at the 29th TPRC (Telecommunications Policy Research Conference). Alexandria, VA, USA. Available at arXiv preprint [cs/0109068](https://arxiv.org/abs/cs/0109068)
- Harrison, C. (2003). Visual social semiotics. Understanding how still images make meaning. *Technical Communication*, *50*, 1, 46–60.
- Higgs, P., & Gillear, C. (2015). *Rethinking old age: Theorising the fourth age*, London, UK: Palgrave Macmillan.
- Jewitt, C., & Oyama, R. (2001). Visual meaning: A social semiotic approach. In T. van Leeuwen & C. Jewitt (Eds.), *Handbook of visual analysis* (pp.134–156). Los Angeles, CA, USA: Sage.
- Katz, S. (2009). *Cultural aging: Life course, Lifestyle, and senior worlds*. Toronto, Canada: University of Toronto Press.
- Kress, G. R., & Van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. London, UK: Routledge.

- Laslett, P. (1991). *Fresh map of life. The emergence of the third age*. Cambridge, MA, USA: Harvard University Press.
- Lester, P. M., & Ross, S. D. (Eds.). (2003). *Pictures that injure: Pictorial stereotypes in the media*. Westport, Ireland: Praeger Publishers.
- Levy, B. R., Slade, M. D., & Kasl, S. V. (2002). Longitudinal benefit of positive self-perceptions of aging on functional health. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 57(5), P409–P417.
- Levy, B. R., Slade, M. D., Kunkel, S. R., & Kasl, S. V. (2002). Longevity increased by positive self-perceptions of aging. *Journal of Personality and Social Psychology*, 83(2), 261–270.
- Loos, E. F. (2012). Senior citizens: Digital immigrants in their own country? *Observatorio (OBS*) Journal*, 6(1), 1–23.
- Loos, E. F. (2013). Designing for dynamic diversity: Representing various senior citizens in digital information sources. *Observatorio (OBS*) Journal*, 7(1), 21–45.
- Loos, E. F., & Ekström, M. (2014). Visually representing the generation of older consumers as a diverse audience: Towards a multidimensional market segmentation typology. *Participations*, 11(2), 258–273.
- Loos, E. F., & Ivan, L. (2018). Visual ageism in the media. In L. Ayalon & C. Tesch-Roemer (Eds.), *Contemporary aspects on ageism* (pp. 163–176). Berlin, Germany: Springer.
- Loos, E. F., Ivan, L., Fernández-Ardèvol, M., Sourbati, M., Ekström, Wilińska, M., Carlo, S., & Schiau, I. (2017). Ageing well? A cross-country analysis of the way older people are visually represented on websites of organizations for older people. *Journal of Comparative Research in Anthropology and Sociology*, 8(2), 63–83.
- Morgan, D. L. (1996). *Focus groups as qualitative research* (Vol. 16). Thousand Oaks, CA, USA: Sage.
- Neilson, B. (2006). Anti-ageing cultures, bio-politics and globalisation. *Cultural Studies Review*, 12(2), 149–164.
- Nelson, E. A., & Dannefer, D. (1992). Aged heterogeneity: Fact or fiction? The fate of diversity in gerontological research. *The Gerontologist*, 32(1), 17–23.
- Nichols, B. S., & Schumann, D. W. (2012). Consumer preferences for assimilative versus aspirational models in marketing communications: The role of product class, individual difference, and mood state. *Journal of Marketing Theory and Practice*, 20(4), 359–376.
- Orpin, P., Walker, J. H., & Boyer, K. (2013). Developing evidence based policy in ageing well. In the proceedings of the 20th IAGG World Congress of Gerontology and Geriatrics. Available at <http://ecite.utas.edu.au/88608>
- Robnett, R. H., & Chop, W. C. (2018). *Gerontology for the health care professional*. Burlington, MA, USA: Jones & Bartlett Publishers.
- Rowe, J. W., & Kahn, R. L. (1997). *Successful aging*. New York, NY, USA: Pantheon.
- Rowe, J. W., & Kahn, R. L. (2015). Successful aging 2.0: Conceptual expansions for the 21st century. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 70(4), 593–596. <https://doi.org/10.1093/geronb/gbv025>
- Statline/CBS. (2018). Internet; toegang, gebruik en faciliteiten [Access, use and facilities]. Retrieved November, 24, 2018, from <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/83429NED/table?ts=1542964646630>
- Stone, M. E., Lin, J., Dannefer, D., & Kelley-Moore, J. A. (2017). The continued eclipse of heterogeneity in gerontological research. *The Journals of Gerontology: Series B*, 72(1), 161–167. <https://doi.org/10.1093/geronb/gbv068>
- Tajfel, H., & Turner, J. C. (1985). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (2nd ed., pp. 72–74). Chicago, IL, USA: Nelson-Hall.
- Van Leeuwen, T., & Jewitt, C. (2001). *Handbook of visual analysis*. Los Angeles, CA, USA: Sage.
- Williams, D., Martins, N., Consalvo, M., & Ivory, J. D. (2009). The virtual census: Representations of gender, race and age in video games. *New Media & Society*, 11(5), 815–834.

- World Health Organization (WHO). (2014). “Ageing well” must be a global priority. <http://www.who.int/mediacentre/news/releases/2014/lancet-ageing-series/en/>
- Ylänne, V. (2015). Representations of ageing in the media. In J. Twigg & W. Martin (Eds.), *Handbook of cultural gerontology* (pp. 369–375). London, UK: Routledge.
-

Author’s Note

I thank the Ageing + Communication + Technologies (ACT) network (<http://actproject.ca/>) for financially supporting the research project “The impact of pictures representing senior citizens as eternally youthful” (Grant 895-2013-1018). The introduction of this paper is based on the summary of this project (<http://actproject.ca/act/the-impact-of-pictures-representing-senior-citizens-as-eternally-youthful/>). The data collection has been carried out as part of Being Connected at Home, a research project from the Joint Programme Initiative More Years Better Lives (MYBL) (<https://www.zonmw.nl/nl/over-zonmw/internationaal/programmas/programma-detail/eu-jpi-more-years-better-lives-j-age-2/>). I also express my thanks to the Dutch association for older people (ANBO) for the research time and Utrecht University master’s student Boban Braspenning for his help with the empirical study.

All correspondence should be addressed to
Eugène Loos
Utrecht University School Governance
Bijlhouwerstraat 6
3512 EV Utrecht
The Netherlands
e.f.loos@u.nl

Human Technology: An Interdisciplinary Journal on Humans in ICT Environments
ISSN 1795-6889
www.humantechnology.jyu.fi