

Social Support and Social Satisfaction for Older Adults in Online Virtual Communities¹

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Abstract

We argue that older adults experience psychological changes based on significant events in their lives, and that their usage of online virtual communities (VCs) is driven by their varying needs for social support and social satisfaction. We propose that socioemotional choices they make, particularly their use of online VCs, are driven by a combination of need for social support and social satisfaction. We use survey data collected from older adults participating in three online VCs focused on retirement life in China. We expect our study to fill the gap in the literature on online VCs by providing insights into the motivation and satisfaction of older users in using online VCs, which can help in designing online virtual communities that can better cater to the psychological needs of older people.

Keywords

Socioemotional selectivity theory, aging, geriatric population, lifestyle, social satisfaction, social support.

Introduction

The aging population is rising rapidly in almost every country, due to rising life expectancy and/or declining fertility rate. People over 55 will take up a large proportion of world population in the near future. Traditional, aging is believed to be associated with decline in the ability and willingness to maintain social contacts that ultimately leads to social exclusion (Berkman and Glass 2000; Berkman et al. 2000; Field and Minkler 1988; Lee and Markides 1990). Socioemotional selectivity theory (SST) argued that this decline in social activity is the result of re-prioritizing of goals rather than decreased physiological capabilities (Carstensen 1995; Charles and Carstensen 2010; Charles et al. 2003). Establishing new social contacts may require significant efforts for older people.

The development of online virtual communities (VCs) brought the hope of bringing older people back into the fold of society. Maintaining a healthy level of social network ties is critical for the emotional and physiological well-being, because of the psychological need to feel embedded in a larger social group (Baumeister and Leary 1995; Snowden 2001), and online VCs allow for easier development and maintenance of social ties. Extant literature has focused on the adoption of VCs by older users from the perspective of outcome expectancy and ease of use (Lam and Lee 2006; Lewis and Ariyachandra 2010). However, aging is a complex process shaped by unique individual trajectories of life, heterogeneity in the physiological status may result in significant changes in preferences for online interactions (Mathur and Moschis 2005). To this date, only a limited number of research addresses the changes in the salience of goals from the users' perspective at later stage of life. Ryu et al. (2009) empirically explore the effect of life course events (LCE) on shaping the individual's motivation to use internet. However, LCE only provides

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insight on the aggregated effect of major negative events, and does not capture the full scope of life-changing events in older users lives (Moschis 2007).

In this paper, we extend the current literature by examining the potential impact of important life events on the older users' preference of social interaction in online VCs. Furthermore, we examine whether these life events change the satisfaction level associated with particular type of online behavior. Using empirical data from online virtual health forums in China, we test hypotheses that predict satisfaction of older adults based on critical events in their life that could affect their physiological status, and their patterns of activities in their online social network (e.g., active sharing, active acquiring, or passive listening). We expect our study to fill the gap in the literature on online VCs by providing insights into the motivation and satisfaction of older users in using online VCs, which can in turn help in designing online virtual communities that better cater to the psychological needs of the older people.

Theoretical Background

Socioemotional Selectivity Theory

Previous assumptions hold that as people age, they demonstrate a tendency to take a psychological retreat and separate themselves from past social connections due to decreased cognitive and physical abilities. Socioemotional selectivity theory (SST) attributes such changes to a reprioritization of goals in life based on perceived limitations on time (Carstensen 1992; Carstensen et al. 1999). When the future time is perceived to be expansive, individuals prioritize future-oriented goals that maximize long-term payoffs, such as personal developments and establishing new social contacts. On the other hand, when they perceive the future time as limited, due to aging or terminal health conditions, people prefer goals that are immediately gratifying, such as spending time with families (Charles et al. 2003; Fung et al. 2001).

Impact of Lifestyle on Socioemotional Status

Extending the SST, we propose that significant events in the life of older people can affect their emotional stability, and change their outward motivation to engage in social interactions mediated by online virtual communities. Older people living with close family members may experience a more peaceful transition into old age (Lou 2010), whereas tragic events such as the death of the spouse or loved ones may lead to significant emotional distress (Cairney and Krause 2005). We categorize sources of events with life-impacting effects into two types: Social support and social satisfaction.

Social Support

Social support is the subjective perception that an individual is cared for, both emotionally and physically (Krause 1986). In this study, we measure the internal factors that older people use to evaluate how efficiently they can regulate their living and emotional needs, as opposed to feeling of helplessness and loneliness (Figley 1983; Krause 2007). First, *health status*. The scope of health status under the context of this study differs from that of most other health related studies. Instead of measuring the actual illness or doctor visits, the focus of this study is on the level of social and emotional needs perceived by the individual. For example, some chronic diseases, if properly medicated, do not impede the individual's ability to perform day-to-day tasks. On the other hand, other conditions that are not disease related, such as failing senses or muscle strength, can have significant impact on daily activities (Phang et al. 2006). Therefore, we assess the health status by measuring if the individual is capable of moving freely, or need assistance in doing so. Secondly, *marriage status*. Spouse has been identified as the most important source of social support for older people over other lesser social contacts (Seeman and Berkman 1988). We propose that married older people perceived higher level of emotional support due to shared life experience, whereas the passing away of the spouse would lead to deepened sense of loneliness.

Social Satisfaction

Social satisfaction is the result of positive/negative outcome of "give and take" interpersonal relationships and fulfillment of social roles, derived by the individual from the sense of belonging to a social network (Cuddy et al. 2005; Lambrini 2016). We capture the notion of social satisfaction in two variables: First,

working status. We propose that for older people work primarily for emotionally gratifying goals such as taking responsibility for the next generation and passing on knowledge, instead of economic gains (Lang and Carstensen 2002). Existing literature have mixed findings about the effect of retirement on the psychological well-being of older people. Midanik et al. (1995) find that stress level decreases shortly after retirement, whereas Dave et al. (2006) find that complete retirement is associated both with an increase in illness and a decline in mental health. We propose that a suitable level of work or voluntary activities provide a sense of fulfillment and satisfaction after retirement (Dave et al. 2006). However, this effect is weaker if the individual is still working fulltime, or is working out of financial necessity. Secondly, *living status*. Living status captures the emotional satisfaction of living with younger family members (Lee 1985; Lee and Ishii-Kuntz 1987). While people in the United States prefer to maintain independent households (Hareven 2001), in more collectivist cultures, it is more common for family members outside of nuclear family to live together (Tamis-LeMonda et al. 2008). The housing price in some developing countries also prevents children in early adulthood to live independently. In the data collection section, we provide a more detailed discussion about the cultural and economic factors we consider in this regard.

Propositions about Socioemotional Choices

We propose a two by two combination of lifestyle for older people: High social support with high social satisfaction, high social support with low social satisfaction, low social support with high social satisfaction, and low social support with low social satisfaction. Each situation would shape the socioemotional choice of the older people differently.

For the first situation, the individual is more likely to be more content and at peace with the world, they are able to maintain a positive attitude towards social interactions and we hypothesize that their average satisfaction level with VCs should be higher compared to other groups. For the second group, the individual is emotionally supported, but feels separated from his/her social network. In seeking social value, we hypothesize that the second type of users may turn to online forums to pass down their knowledge. A pattern of active posting, sometimes without caring about reciprocity, is likely to be associated with this group. The third group is marked by their loneliness. Although their work and children provide a sense of satisfaction, its effect is usually less emotional gratifying than with those social partners who have shared their living experience (e.g., a recently widowed older adult living with children)(Lee and Ishii-Kuntz 1987; Rook 1987). They are more likely to be actively seeking for information on VCs for emotional support. Older people in the fourth group are suffering from both psychological and social impairments. As a result, they would either fall into social seclusion, or they would transfer their social needs on VCs. In the former case, their satisfaction level would also be lower. In the latter case, they may tend to spend much time in online VCs to compensate for social interactions.

Data Collection

Data was collected from three online virtual communities dedicated for older users in China. These forums consist mainly of users born around the 1950s and those retired at home. After removing incomplete responses, our sample consists of 235 valid data points. The questionnaire also contains the kind of activity the respondents mainly engaged in during their use of the online forums. These include actively posting or “posters”, actively seeking or “lurkers”, or passively browsing “dormants”. Satisfaction level with the experience of using the forum was rated using 1 to 7 Likert scale. For brevity, Table 1 lists only a part of the questionnaire where we measure the important life events.

Questions	Answers
What is your living status?	1, Alone 2, With spouse. 3, With Children 4, With grandchildren 5, With at least 2 of the above 6, other
What is your marriage status?	1, married 2, separated 3, divorced 4, widowed 5, never married 6, other
What is your health status?	1, moving freely 2, moving but need assistance 3, bed-ridden
If you are working, how many	(number of hours)

hours do you work each week?	
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Table 1. Questions for Important Life Events Variables

Older people in China make a valid sample for this study for the following reasons: First, China is a developing country with a growing aging population, and a young ICT industry. VCs primarily target younger users, thus allowing us to eliminate their potentially confounding effect on the satisfaction level. Secondly, culture factors in China make it easier to distinguish differences in lifestyle. Culture factors such as collectivism and soaring housing prices makes it very common for older people to live with their adult children. Thirdly, the retirement age in China currently is 60 for men and 55 for female civil servants and 50 for female workers.² By selecting people in this age group, who are mostly fresh retirees or about to retire, we are able to capture how they adapt to their social roles during this transitioning period in life. People in this young elderly group are still active members of the society, and the question of how to properly guide their transition and mitigate the shock of social exclusion is especially important.

Method

We plan to use hierarchical linear modeling, as it is best suited for examining multi-level nested effects. In the baseline unconditional model, we regress satisfaction with no predictors to test for variance. In level-1 partial conditional model, we add in individual level predictors, “poster” and “lurker”, to test for their effect on the individual’s satisfaction. At this level, we also control for individual variables such as age and gender. In level-2 fully conditional model, we regress the level-1 intercept and slope on lifestyle variables, to test if these important life events affects satisfaction overall (intercept), and whether they affect satisfaction through certain type of behavior (slopes).

Contribution

We argue that older people experience different psychological changes based on significant events in their lives, and their usage of online forums and social media is driven by their varying need of social support and social satisfaction. We make two theoretical contributions: First, we divide VC adoption into specific behavior types (e.g. actively posting, actively seeking, dormant), and test SST using satisfaction level reported by the user. Second, we expand the life course events (LCE) by including a more holistic list of important life events, and use them to predict the satisfaction level associated with each type of VC behavior. We expect our study to fill the gap in the literature on online VCs by providing insights into the motivation and satisfaction of older users in using online VCs, which can in turn help in designing online virtual communities that can better cater to the psychological needs of the older people.

REFERENCES

- Baumeister, R.F., and Leary, M.R. 1995. "The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation," *Psychological bulletin* (117:3), p. 497.
- Berkman, L.F., and Glass, T. 2000. "Social Integration, Social Networks, Social Support, and Health," *Social epidemiology* (1), pp. 137-173.
- Berkman, L.F., Glass, T., Brissette, I., and Seeman, T.E. 2000. "From Social Integration to Health: Durkheim in the New Millennium," *Social science & medicine* (51:6), pp. 843-857.
- Cairney, J., and Krause, N. 2005. "The Social Distribution of Psychological Distress and Depression in Older Adults," *Journal of Aging and Health* (17:6), pp. 807-835.
- Carstensen, L.L. 1992. "Social and Emotional Patterns in Adulthood: Support for Socioemotional Selectivity Theory," *Psychology and aging* (7:3), p. 331.
- Carstensen, L.L. 1995. "Evidence for a Life-Span Theory of Socioemotional Selectivity," *Current directions in Psychological science* (4:5), pp. 151-156.
- Carstensen, L.L., Isaacowitz, D.M., and Charles, S.T. 1999. "Taking Time Seriously: A Theory of Socioemotional Selectivity," *American psychologist* (54:3), p. 165.

² <http://www.cecc.gov/resources/legal-provisions/state-council-circular-on-issuing-state-council-temporary-measures-on> (Chinese Text)

- Charles, S.T., and Carstensen, L.L. 2010. "Social and Emotional Aging," *Annual review of psychology* (61), pp. 383-409.
- Charles, S.T., Mather, M., and Carstensen, L.L. 2003. "Aging and Emotional Memory: The Forgettable Nature of Negative Images for Older Adults," *Journal of Experimental Psychology: General* (132:2), p. 310.
- Cuddy, A.J., Norton, M.I., and Fiske, S.T. 2005. "This Old Stereotype: The Pervasiveness and Persistence of the Elderly Stereotype," *Journal of Social Issues* (61:2), pp. 267-285.
- Dave, D., Rashad, I., and Spasojevic, J. 2006. "The Effects of Retirement on Physical and Mental Health Outcomes," National Bureau of Economic Research.
- Field, D., and Minkler, M. 1988. "Continuity and Change in Social Support between Young-Old and Old-Old or Very-Old Age," *Journal of Gerontology* (43:4), pp. P100-P106.
- Figley, C.R. 1983. *Traumatic Stress and the Role of the Family and Social Support System*. Serco Marketing.
- Fung, H.H., Lai, P., and Ng, R. 2001. "Age Differences in Social Preferences among Taiwanese and Mainland Chinese: The Role of Perceived Time," *Psychology and aging* (16:2), p. 351.
- Hareven, T.K. 2001. "Historical Perspectives on Aging and Family Relations," *Handbook of aging and the social sciences* (5), pp. 141-159.
- Krause, N. 1986. "Social Support, Stress, and Well-Being among Older Adults," *Journal of gerontology* (41:4), pp. 512-519.
- Krause, N. 2007. "Longitudinal Study of Social Support and Meaning in Life," *Psychology and aging* (22:3), p. 456.
- Lam, J.C., and Lee, M.K. 2006. "Digital Inclusiveness--Longitudinal Study of Internet Adoption by Older Adults," *Journal of Management Information Systems* (22:4), pp. 177-206.
- Lambrini, K. 2016. "Social Exclusion of Elderly," *Journal of Healthcare Communications*.
- Lang, F.R., and Carstensen, L.L. 2002. "Time Counts: Future Time Perspective, Goals, and Social Relationships," *Psychology and aging* (17:1), p. 125.
- Lee, D.J., and Markides, K.S. 1990. "Activity and Mortality among Aged Persons over an Eight-Year Period," *Journal of Gerontology* (45:1), pp. S39-S42.
- Lee, G.R. 1985. "Kinship and Social Support of the Elderly: The Case of the United States," *Ageing and Society* (5:01), pp. 19-38.
- Lee, G.R., and Ishii-Kuntz, M. 1987. "Social Interaction, Loneliness, and Emotional Well-Being among the Elderly," *Research on aging* (9:4), pp. 459-482.
- Lewis, S., and Ariyachandra, T. 2010. "Seniors and Online Social Network Use," *Proc. CONISAR*.
- Lou, V.W. 2010. "Life Satisfaction of Older Adults in Hong Kong: The Role of Social Support from Grandchildren," *Social indicators research* (95:3), pp. 377-391.
- Mathur, A., and Moschis, G.P. 2005. "Antecedents of Cognitive Age: A Replication and Extension," *Psychology & Marketing* (22:12), pp. 969-994.
- Midanik, L.T., Soghikian, K., Ransom, L.J., and Tekawa, I.S. 1995. "The Effect of Retirement on Mental Health and Health Behaviors: The Kaiser Permanente Retirement Study," *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* (50:1), pp. S59-S61.
- Moschis, G.P. 2007. "Life Course Perspectives on Consumer Behavior," *Journal of the Academy of Marketing Science* (35:2), pp. 295-307.
- Phang, C.W., Sutanto, J., Kankanhalli, A., Li, Y., Tan, B.C., and Teo, H.-H. 2006. "Senior Citizens' Acceptance of Information Systems: A Study in the Context of E-Government Services," *IEEE Transactions on Engineering Management* (53:4), pp. 555-569.
- Rook, K.S. 1987. "Reciprocity of Social Exchange and Social Satisfaction among Older Women," *Journal of Personality and Social Psychology* (52:1), p. 145.
- Ryu, M.-H., Kim, S., and Lee, E. 2009. "Understanding the Factors Affecting Online Elderly User's Participation in Video Ucc Services," *Computers in Human Behavior* (25:3), pp. 619-632.
- Seeman, T.E., and Berkman, L.F. 1988. "Structural Characteristics of Social Networks and Their Relationship with Social Support in the Elderly: Who Provides Support," *Social science & medicine* (26:7), pp. 737-749.
- Snowden, L.R. 2001. "Social Embeddedness and Psychological Well-Being among African Americans and Whites," *American Journal of Community Psychology* (29:4), pp. 519-536.
- Tamis-LeMonda, C.S., Way, N., Hughes, D., Yoshikawa, H., Kalman, R.K., and Niwa, E.Y. 2008. "Parents' Goals for Children: The Dynamic Coexistence of Individualism and Collectivism in Cultures and Individuals," *Social Development* (17:1), pp. 183-209.