Adoption of Social Media and the Quality of Life of Older Adults

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Abstract

In this paper we discuss how social media can be used by older adults to enhance their quality of life. We develop a research model to investigate the factors that may affect the adoption of social media by older adults. This approach differs from previous information systems (IS) oriented adoption studies, since we focus on analyzing older adults’ characteristics from biopsychosocial perspectives. Building on Abraham Maslow’s hierarchy of needs model, we define older adult needs from a quality of life perspective. We then incorporate Maslow’s model into a universal user adoption model with the constructs specifically adjusted to reflect the characteristics of older adults.

1. Introduction

According to World Health Organization (WHO) statistics, the elderly are the fastest-growing age group worldwide. Between 2000 and 2050, the global percentage of older adults (aged 60 or over) will double from about 11% to 22%, with the total number expected to increase from 605 million to 2 billion in that period (http://www.who.int/ageing/about/facts/en). This population aging has already occurred in many developed countries, and it is growing fast in some developing countries. This is especially obvious in China due to China's one-child family policy. An increasing number of older adults may be at risk of social isolation due to such factors as increased probability of living alone, compromised health status, changing family structures, death of family members or friends, and retirement from the workplace [1].

Social isolation is commonly defined as low quantity and quality of contact with others, including “number of contacts, feeling of belonging, fulfilling relationships, engagement with others, and quality of network members to determine social isolation” [2]. Social relationships have been indicated to be one of the most important factors affecting older adults’ quality of life [3]. How to improve the quality of life of older adults, especially to prevent and alleviate social isolation and loneliness, is becoming an increasingly serious social problem [4].

In addition to various social service programs initiated by local communities and government agents, information and communication technology (ICT) may also be used as a tool to help reduce feelings of loneliness and to increase mental well-being of older adults. With the wide availability of mobile communication networks, smart phones and tablets, combined with social media applications, it is much easier nowadays for older adults to contact and share information with family members and friends through text, voice and videos anywhere and anytime. However, to realize this potential, there are still many technical and socio-psychological obstacles to overcome. The use of the Internet by mobile devices has been growing rapidly world-wide among all people including older adults. Social media is especially useful for supporting social contacts and enhancing social relationships [5]. Compared with young people, the use of social media by older adults is still low [6]. However, there has been a lack of empirical studies on the adoption and actual impact of social media on older adults.

To fill this gap, this proposed research investigates how social media can be used by older adults to enhance their quality of life. Specifically, our research questions are: (1) What are the main characteristics and needs of older adults? (2) What are the benefits that older adults can receive from social media? and (3) What are the factors that affect older adults’ adoption of social media? To answer these questions we will construct a model that reflects older adult adoption of social media and verify it through empirical data gathering and analysis.

The remainder of the paper is organized as follows: In section 2, we review the literature of social media adoption by older adults. In section 3, we analyze the main characteristics and needs of older adults. In section 4, we analyze the main functions of social media and the benefits that older adults can get from social media usage. And in section 5, we develop the research model and propositions based on the unified theory of acceptance and use of technology (UTAUT).
model. The paper concludes with the discussion of the contributions and limitations of our study, and suggests some future research directions.

2. Review of Social Media Adoption by Older Adults

While social media is a relatively popular current research topic, most research to date has focused on the use of social media by young people. With the increased number of aged people, as well as the rising proportion of the use of social media by older adults, more scholars are beginning to study the adoption of social media by this segment of the population.

Through an intervention study Lehtinen et al. [7] found that social networking sites (SNS) were considered to be places of socially unacceptable behavior by the elderly, who therefore were not motivated to use SNS. But as the concepts of social media were gradually introduced to the elderly, their perceptions of social media transitioned from a negative view to a more positive, engaged perspective [8]. However, limited computer skills and privacy concerns continued to be the main barriers to adoption of social media by older adults [7] [8].

Considering the barriers that prevent older adults from adopting social media, some researchers have studied how to design interfaces, websites, and equipment that are more suitable for older adults [9] [10] [11]. The availability of touch screens and text-to-voice / voice to text interfaces of smart phones and tablets, have made social media more accessible by seniors with visual, audio or motor impairments.

Pfeil et al. [12] investigated age differences in the use of the social networking website MySpace. They found, compared to teenager users of MySpace, older people tended to have MySpace friends from various age groups. But they were more reluctant to make use of the full capacity of available media, and represented themselves in a more formal and official way.

Some scholars have used the technology acceptance model (TAM) to study the influencers of social media adoption by older adults [13] [14] [15]. In their studies the main factors positive towards adoption were perceived usefulness and perceived ease of use or similar concepts of perceived benefit and perceived ease of participation [13] [14] [15]. Age is negatively associated with behavioral intention. Other factors that were considered include social pressure, trust in SNS, and frequency of Internet use [15]. In addition, perceived technology affordability of online communities and perceived privacy protection were also considered [14]. Ryu et al. [13] studied elderly-specific constructs such as perceived physical condition (physical age), life course events (psychosocial age), perceived user resources, similar prior experience, and computer anxiety, each reflecting the complex aging process. They found that perceived physical condition is negatively related to intention to participate, and that life course events are negatively related to perceived enjoyment and intention to participate. Using the model of adoption of technology in households (MATH), Maier et al. [6] found that adopters are mainly influenced by utilitarian outcomes, normative beliefs, perceived ease of use and fear of technology; and that non-adopters are influenced by utilitarian outcomes and fear of technology.

It has been reported that social media adoption by older adults can reduce perceived life stress [16] or depression [17], improve satisfaction with life [18], contribute to well-being [19], and promote successful aging [20]. However, some studies show that in contrast to age, ill-health, and limitations in activities of daily living and social integration, the general use of ICT does not have a direct impact on depressive symptoms of older adults [21].

In summary, previous studies related to social media adoption by older adults have focused on four aspects: the perceptions of social media and their usage behavior, interface and equipment design for older adults, influence factors of social media adoption, and the impact of social media adoption. However, there has been a lack of studies that focus on the motivation of older people to adopt social media, based on an analysis of their personal characteristics and the perceived benefits of meeting their needs.

3. Characteristics and Needs of Older Adults

3.1. The aging process

From the biopsychosocial perspective, aging can be defined as the process of progressive change in the biological, psychological and social structure of individuals [22]. Due to this change, older adults tend to have the following characteristics: declining health conditions, changing social relations and social class, and feelings of loneliness.

From a biological perspective of aging, changes in the body, brain, and sensory systems result in declining physiological conditions of older people and their physical capabilities. These may lead to chronic diseases of the cardiovascular system, respiratory system, urinary system and body control systems, causing gradual losses to the sensory and motor systems, such as vision, hearing, somatosensory disorders and mobility [23]. Cognitive functions
including processing speed, attention span, memory, intelligence, and problem solving may also be impaired [23].

From the social perspective of aging, because of changes in the work and living environment such as retirement, loss of spouse, empty nest as children move out, social relations and social class of older adults may also change [23]. Living alone, having fewer social network ties, and having infrequent social contact are all markers of social isolation [24].

From the psychological perspective of aging, older people may feel lonely and depressed. Loneliness is a feeling of isolation, disconnectedness, and not belonging [24]. Because of declining health conditions such as loss of vision or hearing, older people may face communication barriers. An accompanying lack of mobility reduces the chance of community participation. Reduced personal relationships due to retirement and loss of spouse may also increase feelings of loneliness.

3.2. Quality of life of older adults

According to Maslow's hierarchy of needs model [25] (Maslow 1954), there are five levels of needs for a human, ranging from the lowest to highest: physical needs, safety and security needs, belonging and love needs, esteem needs, and self-actualization needs. The first level is physical needs for survival such as water, food, sleep, warmth, health, exercise, sex. The second level involves safety and security needs, seeking protection from physical and emotional harm. The third level of belonging and love needs or feeling loved and accepted by others. The fourth level is esteem needs, or seeking confidence and respect. The highest level is self-actualization needs which involve being true to one’s own nature and seeking self-fulfillment through creativity.

In Wahba and Bridwell’s [26] review of research on Maslow’s needs hierarchy, logical arguments were raised about Maslow's theory. But Miner and Dachler [27] pointed out that Maslow's theory has proven to be useful in generating ideas, and as an a priori logical framework to explain diverse research findings. From this perspective, we use Maslow’s theory to define older adult needs from their view of quality of life and their biopsychosocial characteristics.

Most older adults have accumulated savings or pensions during their working years. Therefore, their physical needs have been largely satisfied, which was confirmed by Goebel and Brown’s [28] investigation that physiological needs scored the lowest in all five levels of the needs of older adults. Farquhar [3] pointed out that from the perspectives of older adults, quality of life should not only include general health and functional status but also family relationships and other social contacts. A national survey of quality of life (QoL) based on 999 people aged 65 or more years and living in private households in Britain, found that “the consistently emphasized central planks of quality of life were social relationships, home and neighborhood social capital, psychological wellbeing and outlook, activities and hobbies, health and functional ability, and social roles and activities” [29]. This observation has been confirmed by other studies [30]. Therefore, in the following we will focus on three main needs of older adults: health needs, social needs, and dignity needs, which reflect the characteristics of older adults and are supported by Maslow’s model of hierarchy of needs.

a) Health needs (Maslow level 1, 2): Due to their declining physiological conditions, older adults tend to seek out more health-related information and health care to maintain their health and reduce probability of disease. This was confirmed by a study showing that preventive and health promotion measures for healthy aging are essential for quality of life in older adults [30]. Goebel and Brown’s [28] investigation also showed that safety and security needs scored the second in all five levels of the needs of older adults.

b) Social needs (Maslow level 3): In order to alleviate social disconnectedness and perceived isolation, and to lower perceived life stress, older adults have a desire to establish and maintain connections with family members, friends, and society. This is in accordance with Goebel and Brown’s [28] finding that ‘love needs’ ranked the highest in all five levels of the needs of older adults.

c) Dignity and self-actualization needs (Maslow level 4 and 5): To avoid being perceived less valuable to society due to social status change, older people desire to engage in activities which give a sense of being truly alive or to participate in activities with broader meaning [31].

3.3. Intrinsic and extrinsic motivations

An important characteristic of human behaviour is motivation – the driving force by which individuals achieve their goals. According to Self-Determination Theory [32], there are two general classes of motivation: intrinsic motivation, which is driven by internal interest or enjoyment in the task itself; and extrinsic motivation, such as reward or punishment that comes from outside the individual [33]. For example, intrinsic motivation is what drives people to overcome difficult challenges, even in the absence of rewards for succeeding that might be used as extrinsic motivators. Intrinsic motivators are preferable to extrinsic motivators in encouraging behaviours that lead to
better quality of life because intrinsic motivators are characteristics of the individual. If extrinsic motivators are needed to encourage preferable behaviours, they should be applied in such a manner that they can be withdrawn when the behaviour begins to result from intrinsic motivation [34].

Maslow defined self-actualization as "the desire to become more and more what one is, to become everything one is capable of becoming". According to our definition of extrinsic and intrinsic motivators, self-actualization is an intrinsic motivator. In contradiction to Maslow's sequence of prepotent needs, the completion of each level of needs does not necessarily lead to the next needs level [26] [35]. Indeed, findings from empirical studies indicate that self-actualization needs overlap with other needs categories [26]. Therefore, for older adults, every need is reflected in the intrinsic and extrinsic motivations that the individual may feel.

For health needs, an older adult getting sick motivates that person to search for healthcare information and medical assistance. In this case, the presence of health needs tends to be an extrinsic motivator for most people. However, many healthy older adults may also want healthcare information to keep healthy and live longer. For them, the presence of health needs tends to be an intrinsic motivator.

For social needs, older adults may desire to establish and maintain connections with family members, friends, and society when they feel lonely even though they live remotely from these people. Thus the presence of social needs tends to be an extrinsic motivator for most older people. When an older adult wants to make new friends with others who have similar interests even though they are not lonely, the presence of social needs tends to be an intrinsic motivator.

For dignity and self-actualization needs, when an older adult engages in activities which may help others due to a sense of loss caused by changes in social status such as retirement, the presence of dignity tends to be an extrinsic motivator. However, if an older adult wishes to help others, or is simply interested in something, this can lead to active participation in various activities, where the presence of dignity needs tends to be an intrinsic motivator.

4. Functions and Benefits of Social Media

The term ‘social media’ is widely used both by academics and practitioners. There are many definitions of social media. For the purpose of this study, we have chosen social media defined as "a set of mobile and web-based platforms built on Web 2.0 technologies, and allowing users at the micro-, meso- and macro-levels to share and geo-tag user-generated content (images, text, audio, video and games), to collaborate, and to build networks and communities, with the possibility of reaching and involving large audiences.” [36]. This definition provides for the users of social media to also be involved in the process of creating and co-creating content, with the function of social media including sharing, collaboration and networking.

For a better understanding of the functionalities of social media sites, Kietzmann et al. [37] presented a framework that defined social media with seven functional building blocks: identity, conversations, sharing, presence, relationships, reputation and groups. Haris et al. [5] studied Facebook roles in promoting quality of life among older adults through a qualitative analysis. Based on what has been discussed in the literature, we summarize below four kinds of functions that can benefit older adults: communication, information searching, knowledge sharing, and relationship building.

a) Communication. Social media can be used as a tool to connect with friends, family members and others and to help remove geographic and transportation limitations. Social media provides a variety of communication tools for older adults, helping to maintain family and friend connectivity and supporting contacts with new persons in their lives, by text, voice and video.

b) Information searching. Social media can be used as a tool to search for information, such as health and medical information, technology, news and so forth. Using social media, older adults can easily access a variety of information, especially about health.

c) Knowledge sharing. Social media can be used as a tool to share information by posting, rendering and commenting. Using social media, older adults can share their personal and professional experience in a manner that may benefit others, encouraging feelings of dignity and self-actualization.

d) Relationship building. Social media can be used as a tool to communicate with people from the same age and social cohort and in general with people who are confronting similar problems. This may provide self-reassurance and preserve a sense of "normalcy"; in addition, being able to support others may preserve a sense of being needed. Social media can help older adults to alleviate loneliness and social isolation by building social relations through establishing and participating in group discussion. Older adults can also receive social support by sharing their problems with family, friends and groups, helping to alleviate loneliness and life stress.
5. Research Model

UTAUT (the Unified Theory of Acceptance and Use of Technology) has been widely used in the study of information technology adoption. It assumes that there are four core independent constructs, namely: performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC) as direct determinants of technology usage intention and behavior. UTAUT may also assume that the effect of core constructs is moderated by gender, age, experience, and voluntariness of use [38]. Two of its constructs are similar to TAM (Technology Adoption Model) constructs: PE can be mapped to perceived usefulness (PU) whereas EE can be mapped to perceived ease of use (PEOU). In order to better explain different situations of technology adoption, there is an increasing trend towards using external variables and external theories together with UTAUT [39] [40]. In our study, we introduce Maslow's model of the hierarchy of needs into UTAUT to study the determinants of perceived benefit (equivalent to PE) from the perspective of improving older adults' quality of life. We also tailor the measurement of social influence and technology competence, to reflect the characteristics of older adults. The construct of functional limitations is introduced in particular to reflect physical barriers to the use of social media by older adults. Privacy concerns are also considered, since they may directly affect intention to use.

Our research model appears in Figure 1. Its constructs and related hypotheses are developed below.

5.1. Needs and motivation

Generally, needs is defined as the degree of individual lacks and wants. Considering the characteristics of older adults, we defined the three classes of needs in the previous discussion. There are three constructs that pertain to needs: health needs, social needs and dignity needs. Health needs is defined as the degree to which an older person desires to seek health-related information to maintain health and reduce probability of disease. Social needs is defined as the degree to which an older person desires to establish and maintain connections with family members, friends and society, thereby alleviating social disconnectedness and perceived isolation, and lowering perceived life stress. Dignity needs is defined as the degree to which an older adult desires to engage in activities which give a sense of being truly alive or to participate in something with broader meaning.

For older adults, the greater the needs for certain services, the more motivation will be perceived, both intrinsically and extrinsically.

H1-1a. Health needs will be positively related to intrinsic motivation.
H1-1b. Health needs will be positively related to extrinsic motivation.
H1-2a. Social needs will be positively related to intrinsic motivation.
H1-2b. Social needs will be positively related to extrinsic motivation.
H1-3a. Dignity needs will be positively related to intrinsic motivation.
H1-3b. Dignity needs will be positively related to extrinsic motivation.

Motivation is defined as the driving force by which individuals achieve their goals. Motivation can be intrinsic or extrinsic. Intrinsic motivation is an internal characteristic of individuals that play a significant role in perceptions of (often intangible) benefits. Extrinsic motivation is normally related to the presence of tangible perceived benefits. A person highly motivated...
to enhance quality of life may perceive more of the benefits that social media could bring. For instance, older adults may find social media to be convenient for contacting children living at remote locations at any time to feel less lonely (extrinsic motivation) or to make new friends with similar interests through social media to help enrich their personal life, even if not lonely (intrinsic motivation). Thus, we propose

H2-1. Intrinsic motivation will be positively related to perceived benefit
H2-2. Extrinsic motivation will be positively related to perceived benefit

5.2. Social influence

Social influence is defined as the degree to which older adults believe that family members, friends, and community who are important think they should perform the behavior in question and are willing to help them to do so. Family members and friends can affect older adults from two aspects: showing the benefit of social media to them [18], and teaching them how to use it [41] [42]. Older adults’ children can play a major role in influencing them to use social media as a means of communication among family members [18]. In the UTAUT model, social influence is directly linked to intention to use but the literature also shows evidence that it clearly affects perceived benefit and ease of use of social media by older adults. Thus we propose that

H3-1. Social influence will be positively related to perceived benefit.
H3-2. Social influence will be positively related to perceived ease of use.

5.3. Information technology competence

Information technology (IT) competence is defined as the degree of a person’s ability to use IT. There are two constructs that pertain to IT competence: prior similar experience, and IT self-efficacy.

In the context of this study, prior experience is defined as the degree to which an older adult has had experience related to social media. IT self-efficacy is defined as an individual’s self-perceived confidence in using IT, including using a computer and the Internet.

Experience with past similar technologies contributes greatly to favorable attitudes and the adoption of new innovations [43] [44]. Similar experiences can be a more critical antecedent since the elderly are more likely to be resistant to change than younger people [45].

There is much evidence supporting computer self-efficacy or Internet self-efficacy as a determinant of perceptions of ease/difficulty [14] [46]. Opposite to computer self-efficacy, computer anxiety refers to an individual’s apprehension when he or she is faced with the possibility of using a computer [47]. Many studies on the elderly have argued that computer anxiety is one of their major barriers to adopting innovations [48] [49]. Thus, we propose

H4-1. Prior experience will be positively related to ease of use.
H4-2. IT self-efficacy will be positively related to ease of use.
H4-3. Computer anxiety will be negatively related to ease of use.

5.4. Perceived benefit

Perceived benefit is defined as the degree to which older adults believe that social media will have positive effects and benefits on their lives. According to a review of technology acceptance by older adults [50], as many older adults are retired, they place a high value on independence and perceived impact on quality of life. Then ‘enhancing job performance’ may not be suitable for defining PU. So we have named this construct ‘perceived benefit’. Perceived benefits were already discussed in section 4. It is argued that online communication can be an alternative to conventional communication channels in providing low-cost, easy to access self-help service for older adults [51]. A case study of a 70-year-old video blogger on YouTube suggests that video blogging can be a useful tool for older adults to share life stories and strengthen intergenerational communications [52]. Internet users say that connections with family members and friends (both new and old) are a primary consideration in their adoption of social media tools. Roughly two thirds of social media users say that staying in touch with current friends and family members is a major reason they use these sites, while half say that connecting with old friends they’ve lost touch with is a major reason behind their use of these technologies [53]. We thus propose that

H5-1. Perceived benefit will be positively related to intention to use.
H5-2. Perceived benefit will be positively related to ease of use.

5.5. Perceived Ease of Use

Perceived ease of use is defined as the degree to which an older adult believes that use of social media would be free of effort. In a review of technology acceptance by older adults [50], ease of use was reported to strongly influence technology acceptance and adoption, and this has been shown to be of great importance for older people. ‘Technical difficulties’
and ‘handling more cumbersome’ are the main obstacles to using social media in older adults [6] [20]. Braun’s [15] study showed that greater PEOU would predict higher intention to use SNS. It was also verified to have a direct impact on intention to use, and is a salient indicator of PU for older users [54]. Thus we propose that

H6-1. Perceived ease of use will be positively related to perceived benefit.

H6-2. Perceived ease of use will be positively related to intention to use.

5.6. Privacy Concerns

When social media allows people sharing personal identities, personal opinions, and personal comments between individuals, in a group, or publicly, it also raises some privacy concerns. While privacy is defined as the claim of individuals to determine for themselves when, how, and to what extent information about them is communicated to others [55] [56], information privacy concerns is defined as the “extent to which an individual is concerned about organizational practices related to the collection and use of his or her personal information” [57], and “refer to individuals’ subjective views of fairness within the context of privacy” [58]. In our setting, privacy concerns is defined as the degree to which individuals are concerned that their personal information will be improperly collected and used by others through social media. Privacy concerns may affect user behavior in using social media [58] [59]. A survey about trust and privacy concerns within social networking sites showed that users expressed very strong concerns about privacy of their personal information [60]. Jiang et al. [58] studied privacy concerns and privacy-protective behavior in synchronous online social interactions, and their findings showed that greater privacy concerns will lead to less self-disclosure. Older adults may not feel comfortable letting people know their personal situations such as being ill, having lost a spouse, etc. Therefore, we posit the following:

H7-1. Privacy concerns will be negatively related to intention to use.

H7-2. Privacy concerns will be negatively related to actual use.

5.7. Functional limitations

Functional limitations are defined as impairments in a person’s physical functionality and/or cognitive functionality that could create difficulties in daily life.

We will study three constructs that may affect the use of information technology by older adults: sensory impairments, cognitive impairments and motion limitations.

Sensory impairments are defined as the degree of impairment in vision and/or hearing speech [23] [61]. Cognitive impairments are defined as the degree of impairment in older adult memory and information processing [23] [62]. Motion limitations are defined as the degree of difficulty that older adults face in their motor skills, involving decreased strength, touch sensitivity, movement coordination, and reaction time [23] [63]. Aging brings with it changes in perception, cognition, movement, and psychosocial functioning [23]. These changes may influence an older person’s capabilities to use a technology or technical devices. Older adults with physical difficulties in vision, hearing and motion use fewer technologies than people in good health. Due to their decline in touch sensitivity, older adults may experience difficulty in performing accurate, discrete movements like tapping on very small targets, pressing small buttons, or writing with a stylus, as required by many technological devices [63]. The decreases in strength, movement coordination, and increases in reaction time, can influence the task performance that is required to manipulate technology devices, such as using a mouse to point or double click [64]. Older adults may have difficulty in tasks that involve acquiring new procedures [65]. Functional limitations can be interpreted as a special type of facilitating conditions in the UTAUT model. They may all have a negative impact on both intention to use and actual use. Thus we propose

H8-1. Functional limitations will be negatively related to intention to use.

H8-2. Functional limitations will be negatively related to actual use.

5.8. Control variables

Individual differences are relevant to the acceptance of new information technologies [66]. Here we will study three demographic variables (age, gender and educational level) and two situational variables (residence condition and community participation).

One study showed that the effect of perceived ease of use on Internet use intention was significantly stronger for older seniors than younger seniors, while perceived benefit has a stronger influence on behavioral intention for younger users than for older users [66]. We thus propose that:

H9-1a. The effect of perceived benefit on social media use intention will be stronger for younger seniors than older seniors.

H9-1b. The effect of perceived ease of use on social media use intention will be stronger for older seniors than younger seniors.

Male technology usage decisions are more strongly influenced by their perception of usefulness, while
females are more strongly influenced by their perception of ease of use and subjective norm [41]. We thus propose that:

H9-2a. The effect of perceived benefit on social media use intention will be stronger for male seniors than female seniors.

H9-2b. The effect of social media use intention will be stronger for female seniors than male seniors.

H9-2c. The effect of social influence on perceived ease of use will be stronger for female seniors than male seniors.

Generally, higher-level education means greater intellectual capacities, as well as faster learning speeds, which depend on previous knowledge or guidance by others [66]. We thus propose that:

H9-3a. The effect of social influence on perceived ease of use will be stronger for higher levels of education than for lower levels of education.

H9-3b. The effect of IT competence on perceived ease of use will be stronger for higher levels of education than for lower levels of education.

Older adults prefer to receive help from friends and family rather than following written guidelines, even if the guidelines are easy to follow [41]. This means that face to face communication or hand to hand teaching techniques are more helpful for older adults. We thus propose that:

H9-4a. The effect of social influence on perceived benefit will be stronger for older adults living separately from their children than living with children.

H9-4b. The effect of social influence on perceived ease of use will be stronger for older adults living with children than living separately from their children.

A survey showed that older adults like to mirror offline behavior and structures within the online world [41]. We thus propose that:

H9-5a. The effect of social influence on perceived benefit will be stronger for activity in community participation than inactivity.

H9-5b. The effect of social influence on perceived ease of use will be stronger for activity in community participation than inactivity.

6. Conclusion and Discussion

In this study, we developed a research model to investigate the factors that may affect the adoption of social media by older adults. This differs from previous information system (IS) focused studies, in that we focused on older adult characteristics from the multiple perspectives of biology, psychology and sociology. Based on Maslow’s model of the hierarchy of needs, we defined older adults’ needs based on how they view their quality of life. We then incorporated Maslow’s model into a universal user adoption model with the constructs specifically reflecting the characteristics of older adults.

The resulting model appears in Figure 1. This model extends the basic UTAUT standard model to include considerations of older adult adoption of social media, including Maslow’s Hierarchy of Needs and its relevant intrinsic and extrinsic motivators, and functional considerations that include sensory, cognitive and motion limitations. In addition, there are a number of potential control variables that need to be considered in any empirical study of the model including age, gender, educational level, residence condition, and community participation.

Our study combines social science with IS considerations, and extends UTAUT to study the adoption of social media by older adults, a special class of user with special characteristics. This study can enrich theory in both IS and social science. It may also help corporations to create more suitable services for older adults.

Our research is by no means complete. Empirical study is needed to verify the model and test our hypotheses. We will develop measurements for all the constructs in the model, run a pilot study to validate the instruments, conduct a full scale survey to collect data from randomly selected senior citizens, and finally test the model using a structural equation model. We also need to study further whether the use of social media can actually improve older adults’ quality of life as we have indicated.

7. References


[66] Sun, H., and Zhang, P., “The role of moderating factors in user technology acceptance”, International Journal of Human-Computer Studies, 2006, 64(2), pp. 53-78.