Understanding Older Adults' Preferences for and Motivations to Use Traditional and New ICT in Light of Socioemotional Selectivity and Selection, Optimization, and Compensation Theories

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We explored older adults' use of a wide range of traditional and new ICTs under the framework of socioemotional selectivity theory (SST) and selection, optimization, and compensation (SOC) theory. Twenty-eight in-depth face-to-face interviews with older adults aged 65 and older indicate that, in accordance with the theories of SOC and SST, older adults' decision to use a specific ICT, traditional or new, is based on cost–benefit analysis. Participants reported valuing traditional electronic media, despite its low perceived benefit, for low perceived cost in terms of time and effort invested in adopting the media. They also reported willingness to invest time and effort in learning and using new ICTs, despite it being costly, when the ICT was perceived as effective in fulfilment of life goals. Recommendations for future technology developers and advancing theory are provided.

Keywords: older adults, traditional media, new ICTs, socioemotional selectivity theory, selection, optimization, and compensation theory

The process of modernization contributes to the widening gap between older and younger generations within society (Carey, 1967). This gap is predicted to grow with the emergence of new, Internet-driven media forms that constantly require new use skills. Individuals without updated media and technology use skills are at a higher risk of becoming socioeconomically and culturally marginalized (Selwyn, 2004).

Keeping up with technological progress may provide aging generations with psychosocial benefits and prevent their marginalization. ICT use by older adults can improve their psychological well-being

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(Cotten, Ford, Ford, & Hale, 2014;), reduce stress (Wright, 2000), ease loneliness and social isolation (Cotten, Anderson, & McCullough, 2013), and improve social support (Quan-Haase, Mo, & Wellman, 2017), leading to a higher level of life satisfaction (Wright, 2000), enjoyment (Nimrod, 2009), and leisure and convenience (Quan-Haase, Martin, & Schreurs, 2014).

Despite associations between ICT usage and psychosocial benefits, older adults' adoption and use of new ICT is limited compared with younger generations. Only 67% of older adults access the Internet, compared with 90% of all adults; only 42% of older adults own a smartphone, compared with 77% of all adults; and only 34% use social networking sites such as Facebook (Pew Research Center, 2017). Such numbers signify a gap between members of younger generations, who are more likely to have greater economic, physical, and cognitive access to new ICTs, and older individuals who do not, disadvantaging the latter and contributing to the age-related ("gray") digital divide (Morris, Goodman, & Brading, 2007). However, excessive focus on access to technology removes agency from older individuals, emphasizing more on their inability (*cannot*) to use media and ICTs rather than on their motivation and conscious choice (*do not want*) to do it.

Furthermore, ICT research with older populations often presents ICT adoption and use as a desirable outcome and overlooks the role that traditional media continue to play in older adults' lives. Older individuals' outlook on life and the place of media in it, which could explain why this age group may be more selective in and reluctant about adopting and using new ICTs, has not been studied extensively and in conjunction with traditional media use. The present study extends our understanding by comparing and contrasting attitudinal differences toward traditional and new ICTs. Whereas most previous studies focus on older adults' use of single ICTs, in this study, we attempt to find generalizable patterns of media consumption by older adults based on the theoretical framework of socioemotional selectivity theory (SST) and selection, optimization, and compensation (SOC) theory, which not only guides designers in the development of ICTs for older adults, but also advances theory.

Media and ICTs are defined broadly in the present study. Traditionally, "media" has referred to the means of transmitting and receiving information for the purposes of education, entertainment, communication, and habit maintenance using broadcasting technologies that allow transmitting the same message from the sender to multiple recipients (Carey, 1988; Katz, Blumler, & Gurevitch, 1973). Traditional media, such as print (newspapers, magazines, books), radio, music (records, cassette tapes, CDs), and traditional television (network channels supported by terrestrial communication infrastructure), are defined as media (mass media). With the advances in ICTs, the definition of media has evolved; it now includes a number of newer, Internet- and satellite-based digital technologies, which allow one-to-many (mass), many-to-many, one-to-one, and many-to-one communication. Thus, we broadly define Internet-based ICTs as devices, applications, and formats "used to access, produce, consume, and exchange information in a digital form" (Quan-Haase, Wang, Wellman, & Zhang, 2018, p. 60).

Literature Review

Barriers to Technology Adoption Among Older Adults

Multiple factors contribute to older adults' limited use of ICTs. Many of these factors refer to older adults' inability to access newer technologies. For example, socioeconomic access to technology is signified by high initial cost (C. Lee & Coughlin, 2015), hardware replacement costs due to rapid technological changes (Saunders, 2004), and lack of knowledge about technological advancements (Ng, 2007). Some factors refer to physical and cognitive access that may decline with age, including physical frailty (Keränen et al., 2017); decline in physical and cognitive functionality (Cotten et al., 2013), memory, and spatial orientation (B. Lee, Chen, & Hewitt, 2011); and deteriorating psychomotor skills, vision, and hearing (Wagner, Hassanein, & Head, 2010). Furthermore, lack of skills and experience (Schreurs, Quan-Haase, & Martin, 2017) with new technologies also slows down the process of ICT adoption within aging populations (Hargittai & Dobransky, 2017). Although most of these factors represent older adults' *ability* to adopt and use media and ICTs, some are associated with lack of *motivations* to use/adopt and evaluate media and technologies (Morris et al., 2007). These factors include lack of interest (Selwyn, Gorard, Furlong, & Madden, 2003), lack of meaningfulness and relevance (Hope, Schwaba, & Piper, 2014), self-perceptions (e.g., "I am too old for it"; Eisma et al., 2004), perceptions about others (e.g., "no one teaches me how"; B. Lee et al., 2011; Rosenthal, 2008), and feelings about wasting time and energy learning technology that may become outdated quickly (Saunders, 2004).

Limited research has focused on older adults' assessment of psychological benefits and costs of adopting ICTs. One of the most important psychological benefits of new ICT use that older adults recognize is emotional well-being through communicating with social ties (Cotten et al., 2014). Older adults rely on ICTs to communicate with younger generations, in addition to their own generation (Quan-Haase et al., 2018). Higher use of ICTs has been linked with higher social support (Quan-Haase et al., 2017) and emotional well-being among older adults (Lou, 2010). The more useful older adults perceive an ICT to be for communicating with social ties, the more likely they are to adopt it.

Perception of benefit is an important motivation, while absence of perceived benefit is an important barrier to older adults' technology adoption (Mann, Belchior, Tomita, & Kemp, 2005). Perception of lack of benefit may keep older adults away from new media and technologies, causing further functional barriers, such as lack of exposure to, and experience with, new media and device adoption (Melenhorst, Rogers, & Bouwhuis, 2006). In other words, conscious rejection of some technologies (e.g., lack of motivation) may contribute to older adults' inability to use them, and vice versa. That is why helping older adults see the relevance of ICT use in their lives helps them cross the digital divide (Cotten et al., 2013).

Older adults place higher importance on the perceived benefits of new ICT use than on avoiding perceived costs (Melenhorst & Bouwhuis, 2004). Although older adults weigh the nonmonetary cost of learning new ICTs (time and effort) more than monetary cost (Sharit, Czaja, Perdomo, & Lee, 2004), they will incur the costs of adopting new ICTs, such as making financial, time, and effort investments in learning new technology, if they perceive higher levels of benefits from that ICT. Prior research shows that most older adults are keen

to learn new ICTs despite inadequate skills and anxiety (Quan-Haase, Williams, Kicevski, Elueze, & Wellman, 2018).

Socioemotional Selectivity Theory (SST) and
Selection, Optimization, and Compensation (SOC) Theory

Numerous theories have been used to explore media/ICT users' needs and motives. Some of these approaches, such as the uses and gratifications approach, focus primarily on needs and motivations (e.g., information, entertainment, socialization, and habitual use; Katz et al., 1973). Other models—for example, the technology acceptance model (Davis, 1989) and the unified theory of acceptance and use of technology (Venkatesh, Morris, Davis, & Davis, 2003)—explore not only perceptions of ICT use difficulty and usefulness/performance expectancies, but also environmental conditions (e.g., social, organizational) in which technology adoption happens. We focus on SST and SOC theory because they stem from literature related to the emotional well-being of older adults and are used to explain underlying psychological motivations for adopting or avoiding new ICTs. These frameworks explain older adults' changing needs, wants, and priorities and their effect on these individuals' ICT adoption; they may be used to develop a more generalizable theory related to media and ICT adoption and long-term, continuous use among older adults.

SST suggests that older adults voluntarily reduce casual social interactions and focus on a limited number of strong social ties that are emotionally rewarding (Carstensen, 1992; Carstensen, Isaacowitz, & Charles, 1999). This decreased social interaction is a deliberate choice and a result of changing priorities rather than a result of deteriorating health, immobility, or lack of access to social contacts. According to SST, younger adults do not perceive time as a limited resource as much as older adults do (Barber, Opitz, Martins, Sakaki, & Mather, 2016). Younger individuals are willing to invest time and effort in social interactions that are not emotionally satisfying, but that help them gain knowledge and information (e.g., social interaction at a workplace). With increasing age, perception of limited time and end-of-life thoughts dominate, and life goals shift toward emotional well-being (Lawton, Moss, Winter, & Hoffman, 2002), resulting in higher motivation to derive emotional meaning from life than to expand one's horizons (Carstensen, Fung, & Charles, 2003). Such a shift in priorities drives older individuals to preserve resources in order to ensure interaction quality over quantity and efficiency.

Some research presents contradictory findings, suggesting that older adults in the age range of 60–69 may invest efforts in replenishing their social circles as a result of retirement and relocation; however, these efforts are limited in extent (Okun & Schultz, 2003). Substantial literature suggests that even when older adults are willing to invest time and effort in exploring new ICTs, including online dating platforms (Stephure, Boon, MacKinnon, & Deveau, 2009), the leading motivation behind these efforts is keeping meaningful social connections (e.g., connections with younger family members), which is consistent with SST (Quan-Haase, Wang, et al., 2018).

SST highlights selective social interaction with increasing age, whereas SOC explains older adults' selective interest in life tasks in general. SOC theory suggests that older adults selectively invest resources in activities that help them optimize gains and minimize their losses or costs (Baltes & Baltes, 1990; Freund, 2008). SOC theory acknowledges reduced physical and mental capacity among older adults as a reason for their selective choice of activity. It also suggests that the selective choice of tasks allows older adults to

conserve their energy and allocate it toward tasks that they perceive as important (Freund & Baltes, 2002). Like SST, SOC theory supports the proposition that older adults voluntarily reduce broad-ranged social interactions to carefully invest time and effort to build few meaningful connections.

While most previous research related to older adults' media/ICT use is pragmatic and lacks theoretical perspective, limited theory-based research in this field suggests that SST and SOC theory are helpful in understanding and predicting older adults' media/ICT preferences. Previous research in support of SOC theory suggests that older adults are more likely to adopt new technology (for example, hearing aids) if they perceive it to be highly compensatory (Baltes & Baltes, 1990). Also, Chang, Choi, Bazarova, and Löckenhoff (2015) suggest that with increasing age, the size of online social networks shrinks to selectively include actual friends; others suggest that older adults avoid using social media because of its lack of perceived relevance to, and inconsistency with, life goals (Hope et al., 2014; Lehtinen, Näsänen, & Sarvas, 2009).

In the present study, we aim to extend prior research by studying older adults' preferences for and motivations to use a wide spectrum of traditional and new media and communication technologies. Further, we suggest that older adults are willing to adopt new ICTs if they think that these ICTs help them make meaningful social contact, maximize emotional fulfilment, and minimize monetary, time, and effort investment, but they will avoid ICTs that are perceived as lacking benefits and those that are costly.

Research Questions

The goal of this study is to gain a deeper understanding of older adults' selective use of traditional media and new ICTs. We explore the role of priorities of an aging population that are, according to SST and SOC theory, different from the priorities of younger populations. We also examine differences in older adults' cost–benefit perceptions of new versus traditional media/ICTs. We apply SST and SOC theory to explain why older adults may be motivated more to use traditional than new ICTs, and in which situations they may choose the new over the old media/ICT forms.

RQ1: *What are the perceived benefits that motivate, and perceived costs that impede, use of different types of traditional and new ICTs among older adults?*

RQ2: *How are the perceived costs and benefits of using traditional and new ICTs shaped by older adults' changing life goals and priorities?*

RQ3: *Do changing life goals and priorities of older adults explain their selective use of ICTs (i.e., preference for certain types of media and devices over others)?*

Method

Sample Description

We conducted in-depth, face-to-face interviews with 28 older adults (61% females) aged 65 years and older. The median age of participants was 73 years, ranging from 65 to 90. Our sample was White/Caucasian (100%) older individuals. Most of the sample was of younger age (71% participants were 77 or younger), college educated (46% bachelor's degree holders and 21% master's degree holders), and had moderate to high income levels (29% with income between $30,000 and $75,000, and 21% with income above $75,000), which suggests a higher ability to adopt and use new media/ICTs (Elliot, Mooney, Douthit, & Lynch, 2014). Although sample homogeneity is a limitation of this study, it also provides an opportunity to investigate media/ICT preferences and motivations among older adults who are more likely to have physical, cognitive, and socioeconomic access to new technologies, yet might choose to not use them.

Convenience sampling was used to recruit participants. Participants, aged 65 and older, were recruited through flyers and e-mail announcements distributed through two sources: (1) a senior center in a metropolitan area in a midwestern U.S. state and (2) an online recruitment system managed by a large midwestern U.S. university with access to more than 2,350 local community residents. The flyer and the e-mail contained a brief description of the study, information related to selection criteria (65+), researchers' contact information, and compensation. Interested participants contacted researchers and voluntarily participated in the study for $20 compensation. Recruitment stopped at the point of data saturation, which was indicated by redundancy of participants' insights related to their use of media and ICTs (Bowen, 2008). A total of 85% of older adults (60+) represent the White/Caucasian majority in the midwestern U.S. state where this research was conducted (Mack, 2018). The lack of racial/ethnic diversity within the state greatly contributed to homogeneity of the study sample.

Materials and Procedure

Participants completed a consent form. They could opt out of the study at any time. Interviews, 40 minutes on average, were audio-recorded with participants' permission.

A semistructured interview guide[2] with a set of predetermined open-ended questions (Questions 1–5 in the interview guide) was used to train three interviewers. Follow-up probes were specifically tailored based on participants' responses and were aimed at understanding participants' preferences for traditional and new ICTs and underlying reasons for such preferences. Interviewers recorded observations, notes, and informal information shared by the interviewees. Participants were encouraged to express their views and opinions and to share media/ICT use experiences. The first four interviews were conducted by two to three members of the research team to ensure proper protocol execution.

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[2] For the interview guide, please go to
https://drive.google.com/file/d/17TFqxnoZ3Buribzh8MzZU4VxjYMbKG0S/view?usp=sharing.

In the first phase of the interview, participants were asked which traditional media (newspapers, magazines, radio, television, landline phones) they used, and how and with what frequency they used them. They discussed why they did or did not use each traditional type of media. Participants then talked about the types of new ICTs (e.g., desktop or laptop computers, smartphones and phone apps, e-mail, e-readers, and the Internet, including different websites and social media) they used, the different ways they used them and how frequently, and reasons for using or not using each.

Within 24 hours after each interview, interviewer(s) prepared a one-page summary based on their notes to record their memories and impressions of the conversation. The research team then reviewed these summaries to become familiar with all collected data (Phase 1 in thematic analysis; Braun & Clarke, 2012). Interview audio-recordings were transcribed using an online service. A mix of inductive and deductive thematic analyses was used to reduce the data. Although the research was theory driven (deductive approach), our research questions were broad to allow for richness and variety of collected data and novel insights (inductive approach), which is consistent with the aim to advance theory. Additionally, our approach to thematic analysis was experiential and essentialist because it focused on older adults' meaningful experiences with media/ICTs (Braun & Clarke, 2012). Two coders independently created approximately 40 codes after carefully reading and summarizing the transcripts (Phase 2 of thematic analysis). The coders met frequently to discuss, revise, and combine the codes and share their observations and interpretations in order to ensure data and code trustworthiness (Bowen, 2008). The quotes associated with the codes that the coders agreed on were then combined to generate larger categories and determine common patterns that served as the basis of the proposed themes. The codes that were only proposed by one coder or that were interpreted differently were discussed to achieve coders' consensus. Idiosyncratic codes that were specific to only one or a few participants were excluded from the analysis. Key quotes supporting the major themes were then identified (Phases 3–5 of thematic analysis; Braun & Clarke, 2012).

Results

Most participants used traditional media/devices during a typical day. All participants watched television; 86% listened to radio at home or in the car; 82% read newspapers; and 75% read magazines. About two thirds of the sample (64%) read books. Compared with traditional media, new ICT penetration was limited. Two thirds of participants (68%) reported using cell phones, making it the most commonly used new technology. While 64% used desktop computers, only 54% used laptop computers. The least commonly used devices included tablet computers (36%) and smartphones (25%). Slightly more than half (54%) of the older adults used at least one social media website, with Facebook being the most popular choice.

Nostalgia, Comfort, and Materiality of Print Media Come With Little Cost

Newspapers, magazines, and books were identified as valued traditional media. Participants indicated a preference for print media over any type of traditional or Internet-based media. Most participants preferred reading newspapers, magazines, and books and bought a newspaper at least once a week. The preference for print media was rooted in a feeling of comfort and certainty, which emerged from habit and

prolonged usage. Consistent with previous research, our participants repeatedly expressed fear of losing traditional print media, which indicated a nostalgic value attached to it (Reisenwitz, Iyer, Kuhlmeier, & Eastman, 2007).

> I've read newspapers all my life and I like holding the newspaper, I can take it in the bathtub with me if I want and do the crossword puzzle . . . I love newspapers, I'm sorry to see them going out of style. (Participant #18)

Many participants compared online media formats of print media with hard-copy paper and expressed a clear preference for the latter. Having paper in their hands was preferred for the efficiency of information processing and convenience. Quotes such as, "I hate the newspaper online . . . I don't like it. If it [hard-copy newspaper] goes away, I'm not going to be reading the newspaper. Cause it just gets stuck, you don't wanna go anywhere" (Participant #9), and "I love reading in the Nook, but I think I prefer a book, the printed book. I love to have a book in hand with print. . . . I don't know. There's just something about that" (Participant #11), suggest that newspapers and other print media could offer emotional value to older adults because of familiarity and nostalgia. In line with the theory of SOC, and previous research which suggests that older adults value the materiality or physicality of holding a book for reading (Quan-Haase et al., 2014), these results indicate that print media help some older adults to maximize the emotional gain at a little cost in terms of learning effort.

Television and Radio Ease Loneliness but Are Not Always Relevant

Familiarity with the media did not lead to the same level of love and loyalty in the case of television and radio, even though both were often turned on in participants' homes. These two traditional electronic media were mostly used to ease loneliness and create background noise; they were used as a cost-efficient substitute for social interaction. One participant said, "Sometimes I'll watch TV . . . I'm doing some needlepoint project, which I find, frankly, boring, but I promised somebody I'd do it for them. And so, I put the TV on as a background noise for that" (Participant #21).

The main reason for disinterest toward traditional electronic media was lack of perceived value. Some participants criticized the excessive amount of advertising, while others were dissatisfied with the quality of shows and news on television. Discussing television content, a participant said, "I think there's an awful lot of junk on television that isn't worth watching or listening to. . . . But you still watch it . . . I have it on. I'm not paying much attention. I am multitasking" (Participant #19).

On another occasion, the same participant spoke about quality of news on television.

> [During news] I pick up a book because, at first, the crap that comes on the TV news . . . Who died, who burned out, who in accident, who the police arrested, and the courtroom. All of that crap is the first thing they put on, and to me, that's obnoxious. . . . But I'm reading while that's, so I'm aware of that nonsense. (Participant #19)

We propose that tenets of SST, which primarily focus on social interaction, can be extended to understand some older adults' evaluations of television and radio. Our participants perceived traditional electronic media as sources of irrelevant information and inconsistent with their life goals; hence, they avoided investing time and effort in processing information on television and radio, which conforms with the basic premise of SST about reduced motivation to seek information with increasing age.

In summary, television and radio stayed on for most of the day to allow participants to grab "flashes" of important information and ignore "mindless" content (Participant #11). Even though they were deemed as being of no value, television and radio are still used by some older adults to create background noise. This finding can be explained in the light of the theory of SOC, which suggests that lower perceived cost is one of the major factors that motivate seniors to use a medium. Our interviewees continue using traditional electronic media despite assessing the content as not being critical, mainly because of availability, familiarity, and nostalgia—which translates into lower perceived costs of acquiring media use skills and emotional well-being.

Utilitarian Value of the Internet Is High

Although our participants did not find online newspapers convenient, they appreciated the Internet as a high-quality information source for many other reasons, such as finding health-related information, shopping online, comparing products and prices, banking online, paying bills, making travel-related arrangements, and helping family members. Our participants accessed the Internet through a variety of devices, including desktops, laptops, tablet computers, and even smartphones (though only a quarter of our participants owned one).

> I go on Craigslist and I look for things that I. . . . Like, [Name] wanted a GED thing, so I looked up the GED things, where they give the tests, if you can get it for free, blah blah blah, that kind of stuff. Research. (Participant #1)

A majority of the participants, with very few exceptions, considered the Internet to be useful. A participant mentioned, "I love WebMD. . . . It's great. I trust the people that put out WebMD. I've talked to a lot of people, what their experiences are" (Participant #2). Some participants described the Internet as their assistant.

> Mostly things I don't know about. Things that would be difficult to. . . . How to do things. That's one of the things I like to search for online, "What can I use instead of. . . . Instead of buttermilk, what can I use? How do I clean out my p-trap in my drain? How do I. . . . What is this. . . . Sometimes, I'll look up, "What is this noise I'm hearing in my car?" . . . "My computer's not sending my e-mail now, what are my options?" Those kinds of general inquiry things. Sometimes, I'll look up things, occasionally on Wikipedia maybe after seeing something on History Channel or Smithsonian, I'll try to look into a little bit more of the back story. (Participant #7)

These findings are consistent with previous research related to online activities of older adults, such as overall information search (Schehl, Leukel, & Sugumaran, 2019), seeking health information (Hong & Cho, 2016) and medical advice (Hofer & Aubert, 2013), finding civic services (van Deursen & Helsper, 2015), playing online games, watching TV (Nimrod, 2018), and shopping online (Lian & Yen, 2014).

Our data indicate that our participants found uses of the Internet that have not been discussed in prior research, such as checking the weather, searching catalogues, booking hotels, buying tickets, and making reservations online. Participants also reported enjoying convenient functions of other new ICTs, including e-calendar and schedule maintenance. Our participants indicated that their preference for Internet-based tools stems from the utilitarian value of getting things done quickly, inexpensively, conveniently, and effectively, which is important for building on SOC theory.

> We drove to San Francisco and back this summer, normally I would book places all along the way in advance. Now, we're using Priceline, going down the road and getting a room. Or instead of having to sit out at an exit and eat at some fast food place, she [spouse] can find some little diner or something, some little town a couple of miles away. We love doing that kind of stuff. And we can use TripAdvisor to compare different motels and stuff. (Participant #18)

Reviving Traditional Media Activities With New ICTs

Getting things done efficiently did not mean only replacing older media with new. On the contrary, traditional forms of media activities have been reinvigorated with the availability of new devices and software. The nature of these activities stayed the same, but the tools to achieve an end have changed. For example, the habit of listening to radio drove some participants to subscribe to satellite radio, and the love of specific songs motivated them to use YouTube, which was perceived as a large repository of all popular culture hits, no matter how old. New technologies were perceived to be particularly useful for storing and documenting old media content that is valuable to participants.

> I had these really cool videos of [grandson's name] when he was little, we had grandparents' day and stuff like that and my computer crushed, and I lost them. . . . I found a way to get them back, and I thought, "I'm never gonna let that happen again." I was so scared that I lost them. So I bought this thing, it's called the Book. And you hook it up and you just bounce everything over there from your computer. . . . I'm really paranoid about it now, I've got copies of every picture on there . . . I raised one of my grandsons 'til he was nine. I had a video camera and I did a lot of video when he was a baby. Then I was afraid I was gonna lose them 'cause they were on VHS tapes. So I bought this machine where you could switch from VHS to DVD and I put them all on DVDs and now I keep them in that box, and if there's ever a fire, I grab that box and my book from my computer, put them in a bag and I go. (Participant #1)

This finding is particularly interesting, given that proliferation of technologies such as e-books and e-readers is exceptionally low among older adults (Rainie, Zickuhr, Purcell, Madden, & Brenner, 2012). Yet,

limited previous research signals that older adults are eager to adopt such technologies to help them effectively manage their day-to-day life (Quan-Haase, Martin, & Schreurs, 2016). This study adds to the available evidence by identifying additional specific technology needs of older adults, such as preserving memories through videos and pictures. The use of new ICT tools was attributed to nostalgia and habitual motivations leading to emotional benefits.

Social Media Is Irrelevant, Yet Indispensable

Although participants expressed positive attitudes toward many new ICT forms, almost all expressed negative attitudes toward social media—including users and nonusers. Participants mentioned a number of barriers that hindered social media use and further contributed to their negative perceptions.

One of the most prevalent concerns among participants who were on social media was related to lack of meaningful conversation with loved ones. Participants mainly viewed social media as a source of irrelevant information. They expressed their inability to understand the point of sharing everyday "insignificant" information with others.

> There's a lot of garbage and there's some good stuff [on Facebook]. . . . But it just seems to me that a lot of it is so superfluous that I don't bother too much with it. . . . Like I say, it's kind of like an entertainment thing more than anything. (Participant #2)

> I just don't have any interest. I mean, who cares? [chuckle] I mean, even Facebook, I don't write that much on Facebook. I keep up with friends and family on Facebook, but the majority of people are telling me who they had lunch with or you know. [chuckle] I mean, do I care? (Participant #6)

These findings are consistent with previous research, which suggests that older adults dislike social media interaction because they perceive it to be emotionally distant and a source of "superficial relationships" (Hope et al., 2014; Lehtinen et al., 2009). They value personalized handwritten letters and face-to-face interaction because they provide them with a sense of meaningful interaction and intimacy (Lindley, Harper, & Sellen, 2009). Such selectivity in choice of communication tools, where traditional forms are preferred to new forms, stands in line with the propositions of SST, in which the adoption and use of new technologies to maintain social relations is not perceived as meaningful and worthy of time and effort investment.

One of the major concerns related to social media raised by our participants was intrusion and compromised privacy. The cost of using social media in terms of losing privacy was higher than the benefits it offered. Our findings are consistent with previous studies suggesting that most older adults are concerned about online privacy breaches (Elueze & Quan-Haase, 2018) and either entirely avoid or limit their social media use because of concerns about unintentionally sharing personal information (Quan-Haase & Elueze, 2018). Additionally, participants shared concerns about younger generations that were described as careless when it came to the use of ICTs.

> Do not face, space, text, twit, tweet, none of the above. . . . I think it's very intrusive and could be very dangerous, is dangerous to a lot of people who don't have enough common sense to be careful what they put on it. (Participant #3)

Only two of the participants raised concerns related to technical difficulties and challenges in learning social media, which could be due to the homogeneity of the sample. This finding supports the preposition of SST, which states that some older adults may prioritize quality interaction with family and friends over quantity. In line with prior research, we found that social media does not offer the benefit of rich and meaningful conversation with close family members for our participants. On the other hand, it is perceived to be costly in terms of losing privacy (Coelho & Duarte, 2016; Hope et al., 2014; Lehtinen et al., 2009). Despite their negative attitudes, some older adults still use social media to keep in touch with their family members, particularly grandchildren. Prior research indicates that older adults consider some social media tools, such as Facebook photos (Quan-Haase et al., 2017), FaceTime, and Skype (Quan-Haase, Williams, et al., 2018), to be convenient for connecting with younger family members. While definition of social media is fluid (McCay-Peet & Quan-Haase, 2017), in the current research, participants discussed only social networking sites, particularly Facebook, and did not mention other social applications.

New ICTs as a Source of Family Disconnect

As became evident from some interviewees' comments, participants clearly indicated their preference for face-to-face or phone conversation over social media and other new ICTs in which time and focus are allocated to maintain communication flow. This type of social interaction reduced uncertainty about the response time and number of interruptions, and overall increased control over communication. Participants implied that increased quantity of interaction reduced the quality of interaction, which has become anonymous, asynchronous, and vague.

Participants talked about an increasing disconnect among family members and between young and old generations that was attributed to the use of new communication technologies that have replaced "human communication." The following quote is particularly revealing: "It's [smartphone] almost like coming between us. . . . It's just like she has this thing on all the time, even when we're having a conversation, it's right there. It's like a third person in a room, almost" (Participant #2).

Another participant said, "Well, you go into a bar or a restaurant, and four people come in and sit down at the table and they all start texting. They don't even talk to each other. Same thing at the bar. . . . No socializing anymore" (Participant #18).

In addition, participants often perceived new ICT adoption as forced by family and the social system that has imposed a new style of life. Similar to prior research (see Hope et al., 2014; Yuan, Hussain, Hales, & Cotten, 2016), interviewees indicated that they often tried to adjust to new ways of communication to stay in touch with family members. However, younger family members rarely chose to use traditional communication tools (e.g., landline phones). When asked about her preferred mode of communication to connect with younger family members, a participant replied, "Texting, I have to. I have teenage granddaughters and grandsons. That's all they do" (Participant #6).

> I can call my daughter and she doesn't answer, but if I text her, two seconds later, she will text me back. I'm like, what is that all about? Obviously, your phone's working. [chuckle] . . . I prefer to talk, myself. [chuckle] Texting just takes too long, and I get all the words wrong, and then I gotta go back and change them . . . she says it's just easier for her. She likes to text, I like to talk. So, we're not on the same page. (Participant #1)

As shown throughout the last two themes, our participants did not prefer Internet-based platforms to communicate with their social ties because these platforms did not offer meaningful, in-depth social interaction, which resonates with SST propositions. Yet, consistent with SOC, our participants did not discard the use of new communication technologies and instead negotiated their use through balancing benefits of such use (maintaining social ties) with costs (superficial and disingenuous interaction, privacy concerns, and limited ability to learn new skills).

Discussion

In this article, we examined use and perception of a wide range of traditional and new media/ICTs in a relatively homogenous sample of older adults under the framework of SOC and SST. An overarching theme indicates that participants' decisions to use a specific medium/ICT, traditional or new, are based on the cost–benefit analysis and the consequent perception of efficacy of that technology in fulfilment of life goals. This finding directly corresponds with the premise of SOC theory and SST, which state that older adults seek to maximize their well-being and life satisfaction through focusing their limited resources on selective priorities and interaction (Carstensen, 1992; Lawton et al., 2002).

Our participants' preferences toward traditional media are influenced by low resource investment. As per SOC theory, minimizing cost and resource investment is an important priority of older adults. For our participants, television and radio fall short in fulfilling participants' expectations of high-quality information and entertainment. However, the interviewees perceive minimal cost in continuing the use of these traditional media. Their prolonged use eliminates any commitment of time or effort on their part and provides comfort, ease, and familiarity.

This finding is particularly important for future technology developers, suggesting that new ICTs developed to bring back the look, feel, and appeal of traditional electronic media while serving modern functions may be easily adapted by some populations of older adults. For example, a portable music player that looks and functions exactly like a traditional transistor radio—but also supports USB playback, Bluetooth, and FM radio and has a built-in music collection—has been immensely popular among Indian older adults because of its nostalgic value ("Saregama Hits," 2018).

Print media were highly valued by the participants because they were perceived as least costly in terms of time and effort investment, which encouraged habitual use behaviors, and as a valued source of quality information and entertainment. Similar to television and radio, print media provide a sense of comfort and emotional satisfaction that come from familiarity with and nostalgia for the media. In all, print media promote emotional well-being among older adults from both ends (i.e., minimizing cost and maximizing benefits).

Newer ICTs, such as YouTube and other online information resources, were perceived to be particularly valuable by interviewees because of the benefits they offer, such as convenience, making meaningful social contact, and fulfilling quality information needs. As noted earlier, our participants indicated enthusiasm about using many new Internet-based tools, which are not discussed in prior research. Such detailed description of online activities is valuable for technology developers because most prior research discusses Internet proliferation among older adults in general, and description of specific online activities is scarce (Schehl et al., 2019). Further, our results suggest that older adults who use smartphones are increasingly using smartphone-based Internet, which is an understudied area of research (Hunsaker & Hargittai, 2018).

The current study also suggests that despite participants' willingness to invest time and effort in adopting new ICTs to access the information that is valuable to them, they struggled to adopt new ICTs that did not align with their life goals. Confirming previous research (Lehtinen et al., 2009), our study suggests that participants expressed negative attitudes toward social media for two reasons. First, they perceived it to be costly in the form of obtaining new skills to use devices, adjusting to family members' new communication habits (e.g., texting; Yuan et al., 2016), and losing privacy. Second, they found social media communication to be superficial, irrelevant, and, hence, ineffective in achieving an important life goal of maintaining meaningful social contact.

Previous research assigns this negative perception to technical and financial challenges and lack of access (Hope et al., 2014). However, we found that users of social media, who have surpassed technical and other functional challenges in accessing social media, also expressed concerns similar to those of nonusers. Our participants indicated that they continue using social media, despite their concerns, because there is no other way to connect with younger family members. This finding also indicates an aspect of the generational gap in which participants chose to be excluded from newsfeed making and preferred symmetric immediate spoken mediated communication (e.g., voice phone call) over asymmetric written electronic communication (e.g., texting). The attempts to reduce such generational gaps in communication were found to be one-directional. These results confirm findings of other recent studies, which suggest that older adults perceive new ICTs to be the source of disconnection among families (Ball et al., 2017).

In light of SST and SOC theory, we suggest that when participants engage in social media, it is a result of balancing and negotiating between social connection benefits and high costs of use. In other words, connection with family members, as a prioritized life goal of the participants, outweighs the concerns over the use of social media. This finding reiterates the importance of developing social media tools that facilitate intimate meaningful contact with close family members and allow for privacy control (Coelho & Duarte, 2016) in making new ICTs widely acceptable among some groups of older adults.

Our findings also showed that participants expressed positive attitudes toward other everyday technologies, such as reading e-books and using e-readers and digital photo-sharing devices. This finding echoes prior research, which suggests that older adults are open to adopting new ICTs and even replacing traditional media habits when they find new ICTs to be convenient and reliable (Quan-Haase et al., 2016). This finding strengthens the central theme of our article: Some groups of older adults who have enhanced

access to media and ICTs choose to adopt selective new ICTs when they perceive the ICTs to be in line with their life goals, but they avoid ICTs that are inconsistent with their priorities.

Limitations

The findings of this study should be accepted in light of its limitations. In the current study, the interview sample was racially and ethnically homogenous. In addition, participants were well educated, had moderate to high incomes, and were generally younger (65–77 years old). As noted, sample demographic homogeneity benefited the study in some ways because it allowed us to focus on participants' choices of media/technologies for everyday use rather than their differences in access to them. Despite this, future research should investigate differences in life goals and media/ICT use preferences and motivations, as well as socioeconomic, cognitive, physical, and skills-related access to newer ITCs across different subgroups of older adults defined by race/ethnicity, socioeconomic status, health state, age, and so forth. Although the benefits of in-depth interviewing are extensive, larger representative quantitative studies are needed to further expound on our results and generalize to older adults.

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