

“Tell It Like It Really Is”: A Case of Online Content Creation and Sharing Among Older Adult Bloggers

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ABSTRACT

While the majority of older adults are now active online, they are often perceived as passive consumers of online information rather than active creators of content. As a counter to this view, we examine the practices of older adult bloggers (N=20) through in-depth interviews. We study this group of older adults as a unique case of content creation and sharing. We find that the practice of creating and sharing through blogging meets several important psychological and social needs for older adults. Specifically, blogging supports the development of identity in older adulthood; fosters self-expression that supports older adults' values; provides meaningful engagement during retirement; and enables a sense of community and social interaction that is important for wellbeing in late-life. We argue for a focus on *designing for late-life development* and detail opportunities for online systems to better support the dynamic experience of growing older through online content creation and sharing.

Author Keywords

Blogging; older adults; creative expression; identity

ACM Classification Keywords

H.5.3. Group and Organization Interfaces: Computer-supported cooperative work

INTRODUCTION

More than half of American older adults (people age 65+) go online on a regular basis [17], and increasing numbers of seniors are using social network sites (SNSs) such as Facebook, Twitter, and LinkedIn [16]. Interacting online is an important way in which younger people express themselves and develop their identities [23], but relatively few older adults actively publish content online or use online platforms in the same way [24]. Currently, older adults in the U.S. are often characterized as consumers of online content rather than creators [65]. Older adults may lurk in online communities, which may be a result of the complexity of

interfaces for sharing content, concerns about privacy, and differences in attitudes towards sharing information online [21,26,29,33,48,67].

Yet, online engagement in older adulthood has implications for late-life health and wellbeing [56]. Being active online is associated with positive health outcomes among older adults (e.g., less depression [13]). As people age, they can experience significant change from moving to a new community [36] and retiring from the workforce [61]. These changes can have an impact on older adults' emotional health [60] and evolving identity [51] as well as relationships with family members and friends [12,27]. Prior work has shown that creative expression can be beneficial to seniors and promote healthy aging [8,41]. The perceived control people derive from participating in creative activities and social engagement that creative expression affords can lead to reduced depression and loneliness and increased morale among older adults [8]. Given this, recent work in HCI focuses on how to engage seniors in creative activities and online sharing with family and friends [2,44,54,65]. Existing HCI literature tends to focus on novel prototype sharing systems. While studying such systems is valuable, the literature contains sparse examples of how older adults contribute and share content on mainstream platforms (see [25] as a noteworthy exception), leaving open many questions about how older adults appropriate existing technology to address their need for sharing, disclosure, and community during this phase of life.

This paper analyzes a specific case of online content creation and sharing: older adults who blog. We conducted interviews with 20 older adult bloggers to understand why and how these individuals blog as well as what this practice affords for people in older adulthood. We find that blogging is an important way in which older adults satisfy a variety of needs and embrace the experience of growing older. Specifically, we find that blogging: (1) supports the development of identity in older adulthood; (2) fosters self-expression in ways that support older adults' values; (3) provides meaningful engagement during retirement; and (4) enables a sense of community and social interaction that is important for wellbeing in late-life.

Our case analysis makes two primary contributions to HCI. First, studying blogging provides a lens through which we examine how older adults engage in online content creation and sharing as a way of achieving a variety of goals in late-

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CHI'16, May 07 - 12, 2016, San Jose, CA, USA
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ACM 978-1-4503-3362-7/16/05...\$15.00

DOI: <http://dx.doi.org/10.1145/2858036.2858379>

life. From this, we argue for a focus on *designing for late-life development*, which characterizes older adulthood as a period of growth and reflection. This is in contrast to how much research in HCI frames designing for older adults, which treats aging as a form of decline and problematizes age-related changes as something that technology can solve (see [63] for a review). Second, we contrast our findings with existing literature on technologies to support content creation and sharing for older adults, highlighting converging evidence in this space and areas in which systems could better support the dynamic experience of growing older.

BACKGROUND AND MOTIVATION

As a way of understanding online participation and sharing among older adults, scholars in HCI and CSCW largely focus on studying older adults' behaviors on and attitudes towards SNSs, such as Facebook and Twitter. This work often contrasts older adults' behaviors to those of young adults and teenagers, who frequently use SNSs for staying in touch with family members and friends [24,32,64], connecting with people from their past [57], and self-expression [32]. Older adults also use SNSs to connect with family and friends [26] and with people who have shared interests [29]. Older adults, however, are less likely than younger users to actively contribute on these sites by leaving comments or posting status updates [26,30,38]. Prior work suggests that older adults find sharing brief updates on SNSs to be superficial and "meaningless" [26]. Further, older adults have privacy concerns about sharing information on SNSs and view these websites as a place to show off and seek attention [21,29,67], suggesting that the social practices associated with these sites and affordances of the medium (e.g., unclear privacy policies) may turn off older adults.

While recent press articles suggest that the popularity of blogging in a traditional sense is diminishing [28,43], perhaps due to the introduction of "micro-blogging" platforms (e.g., Twitter), blogging may still be an important online activity for many older adults [31]. Further, the medium of a blog and social practices of blogging provide an interesting contrast with studies of older adults using SNSs. Studying older adult bloggers, although anachronistic, is a valuable way of understanding how older adults engage in the social practice of online content creation and sharing using mainstream technology.

The field of HCI has a long history of blogging studies. Beginning in the late 1990s, blogging emerged as an important social practice for younger people [47]. The initial concept of a blog – which has a dedicated URL and organizes posts in reverse chronological order – is one of the oldest online content publishing platforms and still persists today. For example, twenty years later, Tumblr is one of the most widely-used blogging platforms with nearly 253 million blogs¹ hosted on the site [18]. Early work by Nardi et al. indicates that people blog to document their lives,

communicate with their social contacts, express their views and opinions, update people, seek feedback, release emotional tension, and share their thoughts and feelings [46,47]. These studies, however, only include younger people.

Blogging can also be a source of empowerment [50] and address needs of affiliation and self-disclosure [6] for communities with shared interests or needs. From studying weight loss bloggers, researchers found that these individuals were empowered through blogging because of their ability to voluntarily disclose information to a community of like-minded people and that blogging helped to improve their self-worth [50]. Additionally, Chen [6] found that affiliation and the need for self-disclosure motivates women to blog. Other studies note benefits of blogging for people with chronic diseases such as chronic pain [15] and cancer [7]. Similarly, people with chronic diseases, including some older adults, were more likely to reach out for support through blogs or online forums compared to SNSs [7,15]. This prior work indicates that sharing online can be beneficial for these populations when systems allow for asynchronous communication [15], reminiscence [1,52], and sharing of personal histories or identities [62]. Blogs give voice to vulnerable populations, thus strengthening "the blogger's attachment to the blogging community" [50]. As a result, people who feel highly stigmatized report that blogging helps to improve their self-esteem.

Despite this extensive prior work, little is known about what the social practice of blogging affords for people in older adulthood, who may deal with identity changes introduced by retirement [51], negative stereotypes of aging [63], and the desire to stay socially connected [34]. Although the field has yet to examine existing older adult bloggers, one prior study investigated older adults' attitudes towards social media and blogging as well as how to introduce blogging to older adults [67]. This prior work details older adults' perceptions of blogs as a safe alternative to Facebook, and we further elaborate the differences between SNSs like Facebook and blogs in the present paper. Additionally, our analysis extends these findings by studying the views of older adults who are already deeply engaged in the practice of blogging, revealing how these individuals blog as a way of grappling with the experience of growing older.

Research has also studied and introduced research prototypes aimed at engaging older adults in creation and sharing. In focus groups about reminiscing, older adults describe their openness about using technology to express themselves and see the value of intergenerational sharing [45]. Another study describes seniors who used the Enmesh iPad application to share pictures and messages with each other [65], and found that older adults liked being able to express themselves creatively and wanted to share with a responsive audience. One outlet for creative expression with older adults is

¹ <https://www.tumblr.com/about>

through art therapy, in which technologies may provide greater independence and choice in sharing for older adults [44]. The SPARCS, Tlatoque, and Wayve systems, prototypes for sharing photos, messages, and calendars with family members, are other examples that aim to engage older adults in family sharing [2,11,35]. Finally, Rogers et al. [54] argues that older adults can be motivated to create and share in the technological design space if provided with ways that “tap into the huge diversity of skillsets of retired people.” This work provides a foundation for understanding how to design for content creation and sharing among older adults, and we return to this literature in the discussion.

METHOD

We conducted semi-structured interviews with 20 older adult bloggers (age 65-82; M=73 years old; 18 female). We recruited people who were over the age of 65, had a public blog in English with at least one post created since January 2015, and had publically available contact information (e.g., an e-mail address on their blog home page, about page, or blog profile description). Participants were recruited via snowball sampling either through blogrolls, a feature commonly used by bloggers to list other blogs they follow, or word-of-mouth as recommended by participants at the end of their interviews. The initial list of bloggers was created by searching for older adult bloggers on a public search engine.

On average, our participants have blogged for 7.4 years and eight participants authored more than one blog. The older adults we interviewed use Blogger’s BlogSpot platform, WordPress, and Typepad. On average, participants have made 128 posts in 2015 alone (January through August; min = 4 posts, max = 369 posts,). Participants were also active on popular SNSs like Facebook (n=11) and Twitter (n=15) and described using these sites to promote their blogs. Only one participant who used her blog as a professional outlet used Twitter as a form of micro-blogging (vs. using it to promote her blog). Other than SNSs and traditional blogs, one participant had created podcasts in addition to blogging. Participants were from a variety of occupational backgrounds (e.g. retail, personal trainer, and producer) and discussed many different topics (see Table 1). All but one participant blogged from the United States.

We conducted semi-structured interviews by phone or Skype, with one participant requesting to complete the interview via e-mail. Our interview protocol focused on older adults’ motivations to start and continue blogging, topics that they blog about, challenges encountered, and their blogging process (e.g. creating and editing posts). We used this to open up a discussion with participants about how they share online more broadly, including on other platforms. Each interview lasted approximately one hour and older adults received a \$15 Amazon gift card for participating.

We transcribed all interviews, and multiple researchers reviewed, discussed, and coded the data following a grounded theory approach [5]. Initial open coding revealed themes such as “blogging about aging” and “increasing

P#	M/F	Age	Years Blogging	# of Blogs	# of Posts	Blog Topic
1	F	69	1	1	28	Retirement
2	F	75	10	1	134	Personal
3	F	80	9	1	7	Politics
4	F	77	9	3	62	Personal, quilting
5	F	71	3	2	12	Personal, dreams
6	F	82	9	2	4	Politics and feminism, knitting
7	F	74	15	3	357	Technology, writing, pop culture
8	M	65	9	2	249	Personal satire. technology
9	F	74	10	1	78	Politics
10	F	74	11	2	369	Aging
11	F	75	6	1	15	Travel
12	F	68	2	1	16	Fitness
13	F	68	7	1	31	Personal
14	F	72	8	1	238	Writing
15	F	72	6	2	140	Hiking, personal
16	F	80	7	1	120	Personal
17	F	72	5	1	224	Education
18	F	68	10	2	375	Personal, travel
19	F	72	6	1	10	Family
20	M	73	5	1	106	Travel

Table 1. Participant demographics and blogging profile. Number of posts represents total over last nine months.

readership through commenting”. We further refined these themes through axial coding and constant comparison of data in which we related new data back to emerging themes. Through an iterative process of memoing and theorizing, four high-level themes emerged around how and why older adults blog, which we present below.

RESULTS

Our analysis examines older adults who are active bloggers as a case of successful online content creation and sharing, and through this, we identify four key ways in which blogging helps older adults satisfy important psychological and social needs associated with this period of life.

Development of Identity through Blogging

Our analysis suggests that creating and sharing through blogging provides an important outlet for older adults to continue to refine their identity and reflect on new identities

(e.g., as a retiree, grandparent, older person) throughout older adulthood.

Many of our participants have a blog that focuses on a particular theme in which they write about specific topics, such as HTML and website design, hiking, politics, knitting, feminism, or personal events that occurred in their daily lives. The theme of the blog represents part of that author's identity (e.g., being an avid hiker or political commentator). Participants said they created multiple blogs if they wanted to talk about more than one topic, and rarely did older adults mix personal and thematic blogs. For example, P4 has a blog for her crafting hobby and started a blog to discuss aging. People in older adulthood often desire to maintain and separate multiple identities, each addressing a social need [61]. Here, we learned that older adults purposefully separate themes (e.g., gardening enthusiast) across different blogs, which helps them to express and keep distinct different dimensions of their identity.

Beyond hobbies and interests, an older adult's identity is also influenced by their previous profession [51]. For some participants, blogging was a natural extension of their work-related identity as a writer or journalist. Writing was already part of their identity, both personally and professionally, and blogging helped them carry this identity into older adulthood. One participant who identifies as a writer said that blogging was a natural progression when she entered retirement: "... I was telling my daughter, 'What am I going to do? I am sitting here all by myself.' You know, poor me, and she said, 'Well, you like to write. Writing is what you do...'" (P1). Another participant was also a writer before she retired and said that she started blogging because "I wanted to have an outlet for writing, creative writing and expressing myself in a way that I didn't have to look for a publisher," (P15). In this way, blogging allows free expression without having constraints imposed upon her writing style, topic, and timeline. Similarly, P19 who was previously a writer said, "In retirement it just feels very natural to come to my desk and sit down and be at my computer and be writing. The fact that I'm writing for myself in my own voice is something that I like." Writing as a blogger allows for more freedom than writing professionally, providing older adults with greater control over what and how they share online.

Blogging is also a way in which these older adults negotiate and reflect on new identities as they enter new stages of life, such as retiring or becoming a grandparent. P19 said:

"...all of my working life I identified myself by my job. ...When you retire, you start thinking, and 'Well what am I going to say that I am?' My new identity became, 'I'm a grandmother who is doing full time daycare.... [Blogging] helped me describe what I was doing, it helped me get a lot of positive feedback from people who saw the value in that.'"

Indeed, an important part of an older adult's identity is shaped by their former occupation, and the transition to retirement can be traumatic if their prior employment is the

main source of their identity [51]. Blogging helps older adults deal with their changing identities associated with retirement as well as new family roles that they may now assume. This life change is significant, and some older adults blog to share and reflect on their transitioning identity:

"My intended audience are people over 55 who are either getting ready to retire or who are already retired... I figured other people were in the same boat as I was, and I am going to write about how to cope with this. What am I going to do now that I have lost the meaningful work that I had?... I began to study what retirement is for different people, how it is handled by different people, what problems do retirees face, and those topics form the basis for most of my blogging." (P1)

Beyond coping with new life roles in retirement, many participants explained that their blog is linked to their identity as an older adult, through which they share the experience of aging. For example, P12 said, "[My blog] shows that I'm in my 60s...I would assume people would be interested if they're older." This participant and others describe how their blog topics center on aging, and how the blogs they read are also about people's experiences with aging. Participants described presenting themselves on their blog as being "an advocate for old people" (P10) or that people they follow "tell it like it really is" (P3) for aging. For example, P5 said, "My theme is getting old. Aging and exposing to the community at large what it's really like." This includes sharing both positive and negative aspects of growing older. For example, P5 said:

"I talk to a lot of seniors and I try to give voice to some of their concerns... 'What am I even for? Why am I still here?' and I find a lot of older people say that and I try to search for that answer. I try to give voice to that concern and pull that answer if I can find it."

Participants highlighted the importance of being a voice for older adults more broadly and conveying the true experience of aging, which motivates them to blog and allows them to reflect on and develop their identities throughout older adulthood.

Participants also described developing their voice through the practice of blogging, which is another way in which they manage their online identity. All but one participant said their online identity closely reflected their offline identity. This participant (P8) said that he writes using a persona who:

"swears a LOT more than I do and tends to take a direct approach to subjects. On the rare occasions I do meet with a reader they tend to be surprised that I'm such a mild mannered quiet person! [Persona name] is my darker alter ego!... [My persona] is a heavy drinker and womaniser while I am happily married [for nearly 40 years] and rarely touch a drop. While I don't hide my true identity I don't advertise it either as it might spoil the fun for some."

Having this online identity, which is starkly different from his offline identity, allows him to retain a level of anonymity to be able to write about events that occurred and people he knows in real life. Other studies have shown that older adults have strong concerns about being able to control their privacy online [21,26], and here we see that assuming an alternate persona or online identity is one way older adult bloggers can conceal their offline identity.

Although only one participant blogs using a different persona, some participants described differences in their online and offline voices. As P19 describes, *“There are times when I get depressed, in the middle of winter for example. I try not to represent that online, but I might say I’m depressed, and then talk about what I know I have to do.”* Here P19 describes presenting herself more positively online, but other participants describe being more open or using more humor online through their blog posts. Older adult bloggers are aware that an online audience, even if imagined [40], is reading their posts, and they may change their voice depending on their audience. For example, P15 said, *“I’m aware that anybody, anywhere can read it, so I’m aware even if I only imagine the audience, there is an audience...There’s an awareness that it is a public form.”* She further explained that this awareness of her audience affects the formality of her voice while writing and topics she posts about, which we elaborate upon below.

Older adults in our study took pride in their ability to learn to blog. Generally they started by reading other people’s blogs and commenting on posts. Over time, they realized that they had a unique voice, and wanted to start their own blogs. Several participants proudly described how they taught themselves to blog, rather than relying on help from family members. That is, the way older adults described their independence in learning to blog was an attempt to contrast their abilities with views of older adults being “digital immigrants” and less adept at using technology [29]. Blogging was a way in which older adults reflected on and developed their identities, and at the same time, their identity was further shaped by identifying as a blogger.

Fosters Self-Expression that Supports Seniors’ Values

Younger people regularly express themselves online, including through blogging [30,31], and we find that blogging provides a means of self-expression for older adults in ways that support their values. Older adults in our study appreciate the ability to construct longer and well thought out messages as they blog. For example, P19 said she does not use Twitter because *“I can’t keep myself to so few words.”* Our participants view SNSs as a place for shorter updates and staying connected with close social contacts (e.g., family members and friends). Blogs, on the other hand, were a place for expressing oneself in depth. For example, P5 said, *“That’s another good thing about writing and blogging. It does reveal more inner you than people might see at first in their blog personally.”* Similarly, P6 said *“I go into much*

more depth when I post a blog. It’s something more in-depth than anything I would put on Facebook.”

Self-expression through blogging is not simply about the length of a post, as P6 explains. Older adults view depth of thought, clarity in writing, and continuity across posts as core elements of blogging. This view of blogging resonates with prior work that describes the importance of “heavyweight” interactions for older adults (e.g., written letters, phone calls), which demonstrate a commitment of time and dedication and provide a sense that a real connection was made [34,35]. The desire for so called heavyweight interactions is in contrast to the nature of exchanges over SNSs, which older adults may view as “trivial” and “meaningless” [26]. Aligned with this prior work, we learned that older adults contrasted the depth of self-expression they achieve through blogging to what they consider to be more superficial sharing. P14 explained, *“I don’t want to post just everything like ‘I got up and had breakfast’ type of thing. I prefer to post about something that might interest people.”* Similarly, P5 said, *“I don’t want to hear about their trip upstate to the Empire State Building unless they’re making some broader statement.”* Participants described what they have personally experienced in terms of “meaningless” sharing as well as their view of the culture of sharing on SNSs.

Further, older adults in our study view blogs as a space for serious and meaningful self-expression whereas they use SNSs for short family updates or sharing family photos. While participants have social network site accounts, few said they frequently posted updates to Twitter, Facebook, Instagram, Pinterest, or other similar sites. Instead, they occasionally viewed posts from their social contacts on these platforms and used these tools to advertise their blogs. Twitter was used to *“promote the blog by using the titles’ of the different blog posts”* (P1) to a broader audience, and Facebook was used to share posts with friends and family members. These older adults use automatic posting features built into SNSs, through which they *“use [Facebook and Twitter] to generate readership”* (P13) or *“as secondary distribution channels”* (P10). Importantly, participants are making key distinctions in how they approach different online platforms; they viewed their blogs – not SNSs – as their central online space for self-expression.

For these older adults, self-expression on blogs is also distinct from a diary or journal, similar to views of younger bloggers [47]. Participants viewed blogs as more professional than a diary. P10 said, *“It’s nowhere near any—it’s not a diary at all. It’s a professional publication.”* Several participants described how the intended audience further distinguishes a blog from a diary:

“If I wrote a diary it would be completely different. The blog is for public consumption – a fact of which I am constantly aware – so there are topics, particularly about my family I would never discuss or even mention. The diary would be for me, whereas the blog is for [persona name].” (P8)

These participants describe how the “imagined audience” dictates the different topics that would be discussed on blogs as compared to diaries. Older adults also described the intentionality of blogs as they are more focused with themes and have a more specific purpose than diaries and journals. However, one participant (P17) was in the process of transcribing her offline diary into a blog as a public reference for her former classmates. She said, “*Once in a while there would be a sentence that I would either delete completely and not read, not transcribe into my blog...*” She noted deleting details that were too personal and anonymizing posts to conceal the identities of certain individuals, again emphasizing older adults concerns about online privacy [21,26].

In contrast to both diaries and SNSs, participants identified blogs a safe space for expressing highly personal concerns to which they thought others could relate (e.g., being laid off, transitioning into life as a grandparent) and their thoughts on “taboo” topics (e.g. politics, religion). P9, who writes a political blog, said that she is “*maybe not quite so political offline [laughs]. You know, when I grew up, there were three things you didn’t discuss: money, politics, and religion*”. Yet P9, P18, and P19 specifically discuss politics on their blog and P5 discusses religion. For these older adults, their blog provides them with an online space in which they are comfortable voicing their opinions and invite feedback from others, similar to what other research suggests about why younger people blog [46,47].

While older adults used their SNS accounts to advertise their blogs, they viewed their blogs as having a fairly separate audience with only a few overlapping family members or friends. Part of what may contribute to older adults’ willingness to express themselves and disclose their personal views on their blog is the perceived separation of these audiences. This may help older adults prevent context collapse, in which multiple aspects of one’s identity are flattened into a singular online space [40]. Indeed the “work” of maintaining separate identities may be easier to understand and perform on blogs than other social platforms in which self-presentation is influenced by many other factors (e.g., others posting photos/text about you). Maintaining separate identities may also be easier to do on blogs, which provide opportunities to have multiple profiles, than on SNSs, which support a single user profile.

As we highlight here and elaborate below, blogging opens up older adults to new social circles, which are distinct from their social networks on other platforms, and as such provides a new space for online self-expression and disclosure. This underscores the importance of understanding older adults’ values in self-expression online vis-à-vis the affordances and practices associated with various platforms. While our participants view Facebook, for example, as a central and important space for connecting with family (echoing [9,21,26]), blogs provide these older adults with a forum for self-expression that enables depth of

thought and continuity as well as a safe space for discussing sensitive topics.

Provides Meaningful Engagement during Retirement

We also find that blogging fills a void for many of our participants’ by providing a focal activity and purpose in retirement. That is, blogging serves as a form of “work” for older adults, through which participants established routines and created regular posting schedules. P10 said, “*I have a regular schedule. Up until three or four months ago, I posted seven days a week... I just then switched to three days a week: Monday, Wednesday, Friday.*” Similarly, P1 explained, “*It has become more or less my job. Even though I do not make money on it, I spend three or four hours a day on it. So it has given me a focus for my time...*”

Older adults described the extensive time and effort they put into maintaining and publishing on their blog. They talked about taking time to conduct research for posts, write posts, and often edit and iterate on multiple drafts before publishing posts. The research phase involves looking for statistics and facts so that their blog posts are accurate in the context of writing about one’s own opinions. Bloggers perceive this research to be valuable to their audience but it is also information for themselves and helps them reflect on the topic of their post. After conducting the necessary research for a post, many participants stated that they would write multiple drafts of their posts and continuously edit them until they were satisfied. This involved revising to present facts related to their post, refining the language (often with the aim of not offending readers), and anonymizing names and places to protect their privacy or the privacy of those they are writing about.

Older adults in our study carefully craft, edit, and refine their blog posts as part of the work of maintaining a blog. While most of our participants have been blogging for at least five years, some described the time required to create and edit posts as being a downside. For example, P10 said, “*It takes all my life to do this blog,*” and noted that she recently cut back on blogging. Others described that their blogging ebbs and flows depending on other activities throughout the year. Nonetheless, starting a blog requires a commitment of time, which older adults take seriously, and they emphasized the long-term nature of blogging.

“I don’t think people understand what a commitment it is. When you start a blog, you’re committing yourself to writing once a week or however often. ...It’s not something you just do for a week and then stop... I keep doing it because I keep enjoying it.” (P7)

Part of what contributes to older adults’ sense of meaningful engagement through blogging is the act of creating an artifact that they perceive is of value to others. In fact, many of our participants began blogging because they felt they had something worthwhile to share and thought of blogging as a way of helping others. P1 explained, “*I am happy that I can express myself. I am happy that I can look for information*

and present it to people in ways that I hope can help them.” Specifically, several participants perceived that their blogs describing the aging process or experience of growing older would benefit others, both immediately and in the future. When asked what types of posts would be worth preserving, participants often described that posts that give clues about aging would be most important.

“I think that what they would look for out of my things is mostly how to lend your way through the harder things that are going to come hitting you in the head after you’re 50.” (P13)

Participants saw benefit in saving or printing the posts for their children or grandchildren to reference in the future.

“My great grandkids ...60 years from now maybe they would be interested in what I was like, and what my thoughts were. Because of ancestry.com most of it is born, died, and maybe if you are lucky what kind of work they did. Something like this would give more of my views and stuff.” (P2)

These older adults perceive of imagined audiences relative to both the present and the future. Existing literature on the “imagined audience” tends to describe benefits and consequences of having such an audience as something that occurs within a short time frame (e.g., the intended or unintended audience that may see your update on Twitter moments after you tweet it) [40]. However, in our study older adults described their “imagined audiences” as groups that may use their blogs as an artifact in the future for the purposes of legacy preservation. In this way, older adults conceived of their blogs as something of value to hand down to future generations, similar to a digital heirloom [49].

Blogging plays an important role in how these older adults achieve meaningful engagement in retirement, and while older adults report that the time and effort required to maintain a blog is extensive, this activity is a worthwhile way to share their histories, views, and knowledge with other people.

Blogging as Community and Social Interaction

Staying socially connected is important for late-life health and wellness [55,60], and blogging enables older adults to achieve this in critical ways. Some participants began blogging as a way of disseminating information to a larger group of social contacts. For example, P20 said he *“had a big staff...and trying to keep in touch with them and help them find jobs, so I created a newsletter for the group...”* Soon the newsletter’s subscribers grew to over one hundred people and maintaining it became difficult so he decided to start a blog. Another participant commented, *“I think it’s positive. I think it’s a whole lot easier to do emails and blogging than it is to use more traditional formats.”* (P13) She talked about how blogging has *“reduced the amount of personal emails I send, and letters,”* but saw this as a positive change.

While older adults in our study use their blog as a way of interacting with existing offline contacts, some began

blogging with the aim of expanding their group of social contacts by connecting with new older adults online.

“My goal when I started in 2006 was-- I wanted to interact with other women who were retiring and lived in different parts of the country and find out...what were they thinking about.” (P6)

After starting to blog, the interactive nature of blogs and the feedback they got from other people motivated these older adults to continue blogging. P20 said, *“...I’d probably stop doing [it] if people didn’t ever look.”* Another participant, whose blog was picked up by USA Today and CNN said:

“People read it would write to me and say ‘Gee, I think this is really cool’ or some such thing and I’d always answer them and we’d start a communication back and forth, many of which I’ve kept...and we’re still friends to this day”. (P9)

When asked about their favorite part of blogging, participants responded: *“when I connect to somebody that was totally unexpected and it turns into a relationship”* (P9), and *“I started liking them as people I do not know at all”* (P4). Another said that she posts because of *“those people who tell me that they look forward to reading it every morning”* (P14). While prior work examines how older adults keep in touch with existing ties online [10,15,26,34], participants in our study described many new online friendships found through blogging that led to meaningful offline relationships. A few participants even attend in-person blogging conferences where they interact with each other.

“[Another blogger] wrote to several women a few years ago to see if we wanted to get together and have a meeting, our group, to meet. Six of us went down to [location] and had a meeting three years ago. We got together again last year and we’re going to get together again this year.” (P15)

This older adult explained that she thinks of many of her blogging friends from around the world as family. Blogging allows older adults to have a social support network outside of known, offline family and friends, which helps them to stay socially connected in important ways. P6 said, *“This technology which can really isolate people has the potential to connect them.”* That is, while technology has the potential to further isolate some older adults, blogging can foster important new social interactions and help older adults stay connected.

“This has kept me from being isolated... when I’m lonely or I’m upset about my husband’s Alzheimer’s, I can go on the blog ... and I feel like I am with friends even though they are not right here. It’s better than having someone from here.” (P11)

Interestingly, P11 notes that her online friendships provide her with support and a sense of community that may be better than her local in-person support network. Indeed, some participants described living far away from family members and having friends who have moved or passed away, leading

them to seek new friendships online. Similarly, some older adults have followers who check on them if they have not posted recently. P15 has a friend who “sends [her] an email and it says, ‘Are you okay? Is everything all right?’” when she does not post according to her regular schedule.

“If I don’t post, she [friend] wants to know if I am okay. I feel like almost an obligation almost where I let her know I am going to be away from the computer this week or something like that.” (P2)

The perceived “obligation” to post regularly further highlights the strength of the social bonds older adults establish through blogging. This also echoes the presence of routines and patterns (e.g., calling every evening) as a way of coordinating communication about whether an older adult is all right [26,34].

While the concept of having online and offline friends in a virtual “blogger world” is not a new phenomenon [47], the ability to share in-depth with a broader community of people with similar interests (outside of family members and friends) seems to be what makes blogs uniquely appealing to these older adults. Yet, these older adults act strategically to build online community and social relationships. Many participants said they kept track of their readership through widgets and audience statistic software that are embedded in their blog. A couple of participants used external services such as Google Analytics for more advanced statistics (e.g. predicted readership interests and city). Similar to prior research, some participants use reader statistics to change how they blog [47]. For example, if a post about a certain topic decreases readership, they may not continue to post about those topics. P15 describes how she creates posts based on what she thinks her readers will like:

“I have an app that shows me who’s looking at my blog, how many a day, all the rest of this kind of stuff and you can see where they came from... I wrote in a couple of posts about stinging nettle, people will want to know about that for instance and my blog posts will come up.”

This participant also explained that she views how people arrive at her blog (e.g., specific search terms) and then posts more about those topics to attract more readers. Similarly, P9 said she avoids changing topics too drastically and is “careful with that because that isn’t where my following is at the moment.” Older adults display a high level of awareness of and sensitivity towards their audience, and reflect on their writing in ways that cultivate their following. As part of this, participants learned that maintaining readership means that they are writing about topics that are valued by other people, which contributes to their self-worth. Older adults also explained that they learn about and follow norms in the blogging community, such as social exchange rules.

“I discovered that the way that you gain readers is ... when somebody makes a comment on my blog, I will go look at theirs...then I’d start following them. They follow me...as the years go by, you begin to sort of know these people and they

sort of know me. It’s just sort of like commenting on somebody else’s blog and paying attention to who is interested in what you’re interested in.” (P15)

Older adults have expectations for high levels of reciprocity in online interaction [26], in which they feel obligated to respond to comments on their blog. Participants described the time intensive nature of responding to comments, which adds to the work of blogging. P5 said, “...at some point in time, I disabled the comment thing on my blog because I didn’t want to deal with comments and back and forth.” For her, enabling comments on her blog meant that she had a responsibility to respond to and interact with people who commented on her posts. This responsibility became “very time-consuming” and felt similar to a having a full time job. Older adults also edit comments posted to their blog. Participants described deleting particularly negative comments to portray their blog as a safe space for people to present their views on issues without backlash.

Overall, blogging provides an important source of community and social interaction for these older adults. Learning and following community norms, such as reciprocity in commenting, resulted in increased readership and community support, which motivated seniors to continue creating and sharing online.

DISCUSSION

Analyzing the practices, experiences, and values of older adults who blog provides a case through which the field of HCI can better understand online content creation and sharing for older people more broadly. This case provides an instructive lens for examining late-life development in the context of older adults’ online behaviors as well as informs the design of systems to better engage this demographic and support the experience of aging.

Towards Late-Life Development

Much work in HCI focuses on designing for disability associated with aging, such as addressing challenges of mobility limitations [20], motor impairments [39], memory loss [37], and communication [53]. While addressing these issues is important, considerably less work has examined the design of technology to support the personal and social development that takes place in the later part of life (e.g., [54]). Further, Vines et al. assert that:

“the HCI research community has tended to render ageing as a ‘problem’ that can be managed by technologies. In doing so, it focuses on the deterioration of cognitive and physical abilities, health-related problems and associated risks, and the shrinking of social opportunities and networks resulting in loneliness and social isolation.” [63]

Rather than “deficit-driven design” [3] and focusing on “the downside of aging” [54], a more holistic view of the aging experience is needed. Towards this end, we argue that one way to avoid problematizing aging as something technology can solve is to shift the focus to *designing for late-life*

development in ways that help people embrace and manage the dynamic experience of growing older. Our analysis reveals how a particular group of older adults engages in creating and sharing through blogging as a way to embrace, deal with, and voice their concerns about growing older. The need to express oneself extends into older adulthood [4,8,45], and blogging fills this need in an important way.

While it is easy to assume that identity is static and solidified early in life, we actually continue to develop our identities throughout the lifespan, including into older adulthood [51,61]. Indeed, older adulthood is a time of self-development and change, often brought about by transitioning from the workforce to retirement and consequently needing to establish a new routine or activities that provide a sense of purpose [51,58,61]. The activity of blogging provides a focus for older adults in retirement as well as a space for reflecting upon this change.

Blogging is also a purposeful and meaningful activity for these older adults, and participation in meaningful activities is associated with better psychological well-being and health-related quality of life in older adulthood [19]. Through blogging, these older adults perceive that the artifacts they are producing are (or will be) valuable to others. This perception contributes to their self-worth in a time when they may be questioning their role in society [51]. Similarly, blogging affords self-expression in ways that promote articulation of and reflection upon one's changing identity in older adulthood, which is influenced by shifts in work-life routines, family roles and responsibilities, and the broader experience of aging.

Further, older adults often experience changes in social interaction and the composition of their social groups, resulting from retirement, relocation, and/or the passing of a partner, family members, or friends [42]. Blogging provides important community and social interaction for older adults, who may seek like-minded peers to jointly navigate the experience of growing older or come together around shared interests. Additionally, older adulthood involves a more complex or multifaceted emotional experience due to the positive and negative emotions associated with aging [4]. While participants were an active voice for aging, many described how they did not want to write negative posts. When a participant did describe a seemingly negative event about aging on their blog, they reframed it positively by saying that blogging allowed them to receive support from their community of readers. We show how older adults can develop their voice through blogging about major life transitions, and some may share the complexity of their emotions to call attention to the aging process. Other older adults may mask such feelings (e.g., using humor) to promote readership and foster their online following.

Blogging can be a way older adults fight against negative stereotypes of aging, both by assuming the identity of a "tech-savvy senior" through blogging and by telling "it like it really is" for aging. A growing debate in the disability

studies literature involves the social construction of disability [66], in which society creates the notion of disability by operating under the assumption that the non-disabled person is "normal". Similarly, older adults' voices and online identities resonate against a backdrop of normative views of aging, in which aging is a form of decline plagued by impairment and social isolation [63]. Rather, creation and sharing through blogging or with other digital artifacts [54] is a source of empowerment for oneself while also building community in ways that empower others. Therefore, rather than designing for disability and decline in older adulthood, shifting the focus towards *designing for late-life development* may help prevent reinforcement of these stereotypes and begin to empower the individuals we aim to engage with the new systems we introduce.

Opportunities for Design

While our analysis focuses on the specific practices of a select group of older adults, we study their values and needs in the context of technology use as a way of informing the design of systems for content creation and sharing more broadly. We revisit the four themes from our results section in the context of related work and describe the design opportunities within each.

Support Multiple, Changing Identities in Older Adulthood

As we described earlier, people continue to develop their identities and even take on new identities throughout older adulthood. Older adults in our study blog as a way of reflecting on their changing identities and performing online self-presentation work in the context of their evolving identity [22]. Prior work suggests that older adults may want to maintain multiple identities [61], each with a different social need. Having multiple distinct blogs that embody these identities may be one way older adults achieve this (e.g., blogging as a quilting/sewing enthusiast versus the experience of aging). Designers should consider ways to support complex and multi-faceted identities of older adults in online systems, realizing that older adults may prefer separate online spaces to express different identities, rather than forcing them to adopt a unitary online profile.

Promote Depth of Thought and Reflection in Self-Expression

Prior work has shown that bloggers frequently contribute content across multiple online platforms [31], but older adults in our study reported that they rarely contributed (i.e., by posting, commenting) on other platforms such as Facebook or Twitter. Indeed, this passive behavior on other social platforms is characteristic of older adults more broadly [24]. Among our sample of older adults, their preference for self-expression on a blog is due to both the design of the medium as well as the social practice of blogging. A blog allows for long-form self-expression, which our informants contrasted with the challenges of constraining oneself to so few characters on Twitter, and a continuous and centralized space for viewing posts. In contrast to micro-blogging, in which small excerpts are posted sporadically throughout the day, older adults valued the depth of thought, time, and effort

they spent crafting each blog entry – wanting it to read like a “college essay” and a “professional publication”.

The ways in which older adults described deep, careful, and meaningful sharing through blogging is akin to older adults’ sharing through letter writing as a valued form of communication (e.g., [26,34]). With both letters and blog posts, older adults spend time carefully crafting an artifact for a particular audience in ways that convey a level of thoughtfulness and care. Both blogging and letter writing afford the ability to create and save drafts, edit this content over time, and then share content (i.e., post the blog or mail the letter when ready). The reflexivity and iteration inherent in these practices is in contrast to the seemingly spontaneous nature of self-expression on more traditional SNSs. Recent prototypes (e.g., [2,11,35]) push the boundaries between so called “lightweight” and “heavyweight” sharing, illustrating gradations of sharing that are valuable and rich in their own way [35]. Nevertheless, future systems that aim to facilitate self-expression for older adults should consider ways to support iteration, reflection, and revising activities.

Support Meaningful Work, Meaningful Artifacts

Among younger bloggers, 84% describe their blog as a hobby and something they do not spend much time on [31]. In contrast, our informants view blogging as something that is worthy of time and investment. Some equate blogging to a job and treat it as their “work” in older adulthood. Blogging provides a source of meaningful engagement for older adults by providing a focal activity, around which older adults create routines and regular posting schedules. Prior work involving the SPARCS system suggests that it is important to prompt older adults to share routinely and that these routines help develop a captive and interactive audience [2]. Older adult bloggers are doing precisely this, and their interaction with their audience depends on this routine to the point that followers check on older adults if they deviate from their posting patterns. Designing to encourage similar structure and routines in sharing may help foster meaningful engagement and successful interaction with one’s audience.

Deriving a sense of meaningful engagement through blogging also stems from creating an artifact that is valuable to others. Older adults view their blog as something that will help or be of interest to others. They described printing out blog posts or saving them in some way so that others may benefit from this information in the future. Older adults’ perceptions of the archival and artifactual nature of blogs suggests that they may serve as a digital heirloom [49]. Similarly, other prototypes that have successfully engaged older adults center around sharing family histories [49,52] and artifacts [59]. The motivation to document life experiences heightens in older adulthood as people view the end of life drawing near [14], and future online sharing systems with archival and tangible qualities are likely to resonate well with the goals of older adults.

Foster Community and Interaction with New Social Groups

Blogs are a space in which older adults created friendships and extended their social circles to include many people who they had not met in-person. Indeed, prior work suggests that creating and sharing content may be a way of fostering new social connections [25,54,65], and our analysis provides a detailed example of this occurring in practice. Interaction through their blog was a way of reaching out to “virtual friends” or initially, weak ties. Prior work on the Enmesh system also notes that sharing with strangers is challenging without having an interactive audience [65], and here we observe that the culture of blogging and artifacts produced help enable a level of interaction that older adults desire. Providing appropriate spaces for sharing and interacting with weak ties can benefit older adults by expanding their social support networks. Yet, older adults have expectations around online reciprocity [26,34], and features that allow them to customize the level of expected reciprocity (e.g., ability to enable/disable comments) are important.

Interacting with new social groups (and being motivated to continue doing so) was largely influenced by older adults’ visibility of their online audience. Older adults appreciated that they could see which posts were popular with readers and learn more about their readers with advanced analytics. This transparency of their audience, even if by size alone, let participants know that their posts were being viewed and that others found this information to be worthy of reading. In this sense, audience awareness influences older adults’ self-perception that what they are expressing is relevant, impacting their self-worth. Designers should consider ways to make audience information transparent, easy to understand, and useful for self-reflection.

CONCLUSION

This paper provides a case analysis of older adults who actively engage in online content creation and sharing, which stands in contrast to current views of older adults as lurkers and passive members of online social communities. Through the practice of blogging, older adults find ways to meet a variety of psychological and social needs that arise in older adulthood. Our case analysis, however, has limitations due to the small, homogenous sample. Our sample includes two men, who may have slightly different perspectives and values around online self-expression, disclosure, and social interaction [6]. Additionally, our sample consists of current bloggers, who are likely more active online than the broader older adult population. Lastly, we recruited participants with public blogs, and older adults with private blogs may exhibit different online behaviors. Nonetheless, our analysis provides insight into how older adults create and share content online, through which we highlight *designing for late-life development* as a productive framing for creating new technologies to empower people in older adulthood.

ACKNOWLEDGEMENTS

We thank our study participants and Karina Sirota for her help transcribing interviews. This work was supported by NSF grant IIS-1533340.

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