



## Enactment and use of information and the media among older adults

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### ABSTRACT

Active use of information and the media may promote healthy aging. The everyday information behavior of older adults' is examined, and the activating role of the media thereon—that is, the use of television, radio, newspapers, magazines, and the Internet. Enactment, an evidence-based concept, is introduced as a theoretical tool that refers to the phenomenon of information and media use leading to action in concrete daily activities. The research strategy was qualitative, consisting of content analysis of semi-structured interviews of 13 retired teachers and the media diaries of 306 older adult Finns. Fifteen categories of information and media use were proposed and grouped into four forms of enactment on the basis of their temporal nature, namely, direct or indirect engagement: 1) general routines and housework, 2) healthy lifestyle, 3) cognitive tasks, and 4) interaction with others. Enactment takes place when older adults' everyday information behavior leads to observable actions, such as organizing their daily activities, preparing food, exercising and engaging in healthy activities, practicing language skills, or filling in crossword puzzles. These findings support the notion that use of information and the media can motivate older adults to stay active in life. Therefore, the concept of enactment may prove useful in gaining a better understanding of certain physical, cognitive, and social aspects of everyday information behavior and their impact on people's well-being. However, the findings should be validated in a broader population.

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### 1. Introduction

Research on healthy aging and well-being in later life has a long history (Pinquart & Sorensen, 2000). However, aspects of human information behavior (Spink & Cole, 2006; Wilson, 2000) have been insufficiently examined in relation to aging, although studies do indicate that the amount and quality of daily activities relate to older people's well-being and health (Asla, Williamson, & Mills, 2006; Chatman, 1992, 1999; Williamson, 1998, 2005; Williamson & Asla, 2009; Xie & Bugg, 2009).

Use of mass media usually takes on a different role after retirement and may form the basic context of older adults' everyday life (Gauntlett & Hill, 1999; Harwood, 2007; Niemelä, 2006; Niemelä & Huotari, 2008; Pecchioni, Wright, & Nussbaum, 2005; Williamson, 1998); the Internet may enable them to remain active in society (Hill, Beynon-Davies, & Williams, 2008). Research on information use has not been given enough attention in library and information studies (LIS), however, where the foci have been on information needs, seeking information, and more recently, on information sharing (Savolainen, 1995, 2008, 2009a, 2009b; Wilson, 2009). Williamson (1998, 2005) is among the few who have conducted empirical studies on older adults' ways of seeking and using information.

Research on older adults' use of information and the media (Baker, Cahalin, Gerst, & Burr, 2005; Lampinen, Heikkinen, Kauppinen, &

Heikkinen, 2006; Maibach, 2007; Wadsworth & Johnson, 2008; Williamson, 1997, 1998) is added to. Instead of emphasizing media use as a relatively passive form of action, and media users as a passive audience (Kubey & Csikszentmihalyi, 2002), a new concept of enactment is proposed. Enactment emphasizes the activating role of using the media and information in a way that manifests as observable actions. Actions are interconnected with time, and the timing of information use has implications for the conceptions of the value and impact of the information (Cleveland, 1982; Cronin & Gudim, 1986; Kari, 2001, 2007). However, time is often simply glossed over in research on information behavior (Solomon, 1997). Conceptualizing the phenomena related to media and information use as observable actions, interconnected with time, is challenging, as actions can be undertaken directly after obtaining information, or indirectly after a short or even a longer period of time. Nevertheless, both types of enactment, direct and indirect, can help a person find ways to stay active and maintain everyday practices. Thus, enactment may promote successful aging (Rowe & Kahn, 1998; Williamson and Asla, 2009), and is related to the criteria of functions as outlined by the International Classification of Functioning, Disability, and Health (International Classification of Functioning, Disability & Health (ICF), 2004).

### 2. Problem statement

Gerontological research indicates that a positive perception of the future is usually expressed through activities (Bryant, Corbett, & Kutner, 2001; Faircloth, Rittman, Boylstein, Young, & van Puymbroeck,

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2004). Engaging in several daily activities indicates health and subjective well-being, which are also associated with information behavior. This view of healthy aging is utilized to examine information and media use from the perspective of LIS. This provides a new aspect into the information behavior of older adults that has not been applied in previous studies. Although the overall view about the usage of information and media channels among older adults has been discussed in research literature before, the specific forms of information and media use leading to actions and the concept of enactment as suggested are unique. Furthermore, the timing of information behavior as examined in this context has an impact on well-being in older adults' everyday life. These views justify the setting of the research questions as follows:

- 1) In which ways does the use of information and media have an activating role in the everyday life of older adults?
- 2) What physical, cognitive, and social aspects of enactment are connected with information and media use among older adults?
- 3) What temporal dimensions of information and media use characterize different forms of enactment?

How older people are able to maintain healthy lifestyle, cognitive tasks, and social interaction by the inventive use of the media and information is examined qualitatively. These aspects of enactment are crucial for sustained engagement in the activities and maintenance of everyday functions among older adults, whose number is growing in society. Besides benefitting this age group, the providers of services and content who target the older audience via different channels may consider the findings applicable.

### 3. Literature review

#### 3.1. Defining use of information and the media

As a concept, information is multidimensional and much broader than providing a basis and impulse for action (Bates, 2010; Capurro & Hjørland, 2003; Case, 2007). This study seeks to deepen the understanding of this dimension, however, by focusing on the inspiring impact that use of information and the media may have on the activities of older adults in everyday life.

The cognitive paradigm has dominated conceptions of information use, and for example, Cole & Leide (2006) defined information use as a process in which an environmental stimulus, which includes stimuli obtained from reading, viewing, and listening activities, modifies the user's knowledge structure. Terminological inconsistency prevails in this area of LIS, added to numerous conceptualizations of information use in other disciplines such as communication sciences, consumer research, and management science (Kari, 2010; Savolainen, 2009b).

In Dervin's (1992, 1999) sense-making approach, information use was examined as a metaphor and a process that includes both cognitive and emotional aspects. Kari (2001) presented a process model of information action to explain information use. Hektor (2001) applied the concept of information activity in his model but restricted it to the web environment.

In everyday information behavior, the utilization and utility of information are crucial. From this standpoint, information use should be viewed as constructive, functional, and oriented to action (Talja, Tuominen, & Savolainen, 2005). Moreover, observable behavior and actions have been identified in the utilization of information about heroin by adolescent girls in Australia (Todd, 1999).

Studies on media use are often based on the uses and gratifications approach because they examine how and why individuals use and adopt mass media in their everyday lives for the purposes of both entertainment and utility. This was stated, for example, by Case: "Audiences choose among the media and content to accomplish the goal of gratification. People actively invoke that function of the mass media usage doesn't just 'happen' to them" (Case, 2007, p. 155). Studies

indicate that audience gratifications can be derived from at least three distinct sources: media content, exposure to the media, and the social context that typifies the situation of exposure to different media (Katz, Blumer, & Gurevitch, 1974).

Furthermore, the uses and gratifications approach emphasizes the need to consider what people do with the media. Ruggiero (2000) claimed that the uses and gratifications approach has explanatory power when individuals are most active in consciously making use of the media for intended purposes. Williamson (1998) valued the uses and gratifications approach as "an important theory in the mass media field because it deals with an "active" audience. Its use is therefore very suitable for research that focuses on the individual and is particularly appropriate in a study that requires comparisons between different media and types of content" (1998, p. 25). Williamson applied the approach despite the criticism that has been leveled against it: that it is nontheoretical, vague in defining key concepts, and basically nothing more than a data-collecting strategy (Severin & Tankard, 1992). Recently, uses and gratifications or benefits of media use have attracted researchers who study the Internet, social media, and gaming (e.g. Dunne, Lawlor, & Rowley, 2010; Lee, Goh, Chua, & Ang, 2010).

Media use and information use intertwine. The emphasis here is on the activating role of both of them. Interpreting words and messages is the self-evident way that information use activates people. People also become activated by, for example, recycling newspapers with their neighbors, or walking to a library, or a free newspaper stand, without any understanding beforehand about the information they may get. It is not only the information content that activates people, but also mere simultaneous interaction with media channels. Hence, handling copies of newspapers or walking to a library is defined as media use. Thus, the choice of a media channel and turning on the TV or radio refers to media use, whereas the information content that channels provide refers to information use.

Next, the concept of enactment is presented to facilitate a more detailed analysis of information and media use.

#### 3.2. Defining enactment

The basis for defining enactment rests on communication studies (Griffin, 2003). As already discussed, the concept of information is multidimensional, and not all information that is received leads to action. Enactment is defined as information use or media use referring to concrete, visible, and observable actions and activities. In this definition, media use refers to actions undertaken to access media channels, whereas information use refers to the content of information obtained from media channels. Thus, this definition excludes such uses of information and the media that do not lead to observable actions. For example, pure thinking without leading to actions cannot be considered enactment. An analysis of motives for information use is also beyond the definition of enactment (Niemelä, 2006; Niemelä & Huotari, 2008).

The idea of enactment implies the same intentions as Wilson's constellation of interest-concern-caring, in which caring refers to an individual's ability and readiness to seek information and take action (Wilson, 1977). While Wilson defined "concern" as readiness to act, and "caring" as capability to exert influence, having an interest does not imply concern or caring. Wilson stated further that "we all care for our own health and welfare and that of relatives and friends, and we are prepared to take action to ward of dangers and take advantage of opportunities for improvement" (1977, p. 43).

Enactment certainly may have both mental and physical outcomes when a piece of information or use of the media has an activating impact on an individual. Thus, in relation to Kari's (2007) conceptual model of information outcomes, enactment can be seen as a specific instance of the positive effect of information (and use of the media).

Both orienting and purposeful use of information can lead to enactment, which can be perceived as “a process through which people invent their own environment” (Griffin, 2003, p. 266). In Williamson (1998) the mass media were most commonly used in an orienting way, that is, listening to the radio, watching television, or reading newspapers, without the intention of searching for anything special.

Weick (1995) describes enactment in an organizational context where there are “subjective interpretations of externally situated information, but that information has become external and objectified by means of behavior” (1995, p. 37). In Weick’s view, enactment is first and foremost about action in the world, and not about conceptual pictures of that world. Furthermore, Orlikowski’s (2002) conception of knowing in practice in organizational settings approached information use as something which is enacted, leading to acting, doing, and practicing. Thus, Weick’s definition of enactment and Orlikowski’s conception of knowing in practice share the same interest as the definition for enactment here.

The forms of enactment have not been studied in LIS previously, and so the intention is to shed light on these phenomena.

#### 4. Method

Empirical research was gathered and analyzed based on a qualitative approach and triangulation of research methods. The longitudinal data consist of interviews of 13 retired high school teachers and the media diaries of 306 older adult Finns. The thematic interviews, including an application of the critical incident technique (e.g., Flanagan, 1954; Urquhart et al., 2003), were conducted in 2001 and 2004. The interviews took place in the participants’ homes or in a quiet room at the Central Library in Oulu, a city in northern Finland, and were lengthy, taking from 80 to 160 minutes, the average duration being 111 minutes. The media diaries written by 1526 Finns were collected in 2001 through a national survey conducted by the audience research department of the Finnish Broadcasting Company, the Research Centre for Contemporary Culture at the University of Jyväskylä, and the Finnish Literature Society. The informants were asked to describe their media use during 1 day, November 29, 2001. In addition to this, several informants actually described their everyday media use in ways that are referred to as enactment, providing a broader picture that typically would have been obtained only through interviews. A sample of 306 media diaries was selected on the basis of the age of the informant (60 years or more). (Finnish Social Science Data Archive, 1306, 1306, 2001).

The analysis was conducted as a theory-based iterative process grounded on qualitative data methods (Denzin & Lincoln, 2005; Patton, 2002). On the basis of careful reading of theoretical literature, there was some understanding of the concepts applicable in conceptualizing the phenomenon of enactment (Griffin, 2003; Weick, 1995). A total of 15 thematic categories were identified as being related to enactment through the coding process of the content analysis of the interviews, and then validated through the content analysis of the media diaries. At first, the entire diaries were examined. After that, only the specific uses of information and the media in relation to observable actions described in the media diaries were regarded as enactment and analyzed according to the identified 15 thematic categories.

In the first phase of the analysis, the 15 categories were classified into general and concrete enactment, referring to the specificity of each category (Niemelä, 2006). The choice of the most appropriate category was made on the grounds of what the informant emphasized. For example, cooking relates to preparing food as a category of enactment, but healthy eating habits relate to the category of exercising and engaging in healthy activities. Collecting recipes is seen as being related to the category of storing information and not to the category of preparing food and cooking.

In the second phase, all 15 categories were reassessed on the basis of their temporal dimension by dividing them into direct and indirect enactment (Niemelä & Huotari, 2008). In this, the third phase, a new interpretation of the original 15 categories is presented by grouping them into four forms of enactment combined with their temporal dimensions (direct or/and indirect). The four forms of enactment reflect general routines and housework alongside the forms of enactment distinctively emphasized by physical, cognitive, and social aspects of information behavior. As is typical in the interpretation of qualitative data, the categories are somewhat overlapping and sometimes closely related to each other, which indicates the multidimensional nature of human information behavior and enables a multi-perspective analysis.

Older adults’ information behavior relates to everyday activities that are enabled and caused by information received and put into action as direct or indirect enactment (see Fig. 1). For example, visiting libraries, cafes, and free newspaper stands refers to media use and direct enactment as such. However, as a form of information use, this becomes possible by visiting the library, cafe, or newspaper stand; it refers to indirect enactment after obtaining information from any medium.

#### 5. Findings

A multitude of human actions in which media use was involved was revealed. When interacting with different channels and sources of information, older adults received impulses and inspiration for their everyday life. In addition, the media use promoted action intentions that may be beneficial and help older adults remain active in life.

Four forms of enactment were identified on the basis of engagement: 1) general routines and housework, 2) healthy lifestyle, 3) cognitive tasks, and 4) interaction with other people. Each of the 15 categories forming these four groupings was examined on the basis of its temporal dimension, that is, the direct or indirect impact of the information received (see Table 1).

Most of the 15 categories refer to enactment influenced by the information received. Nevertheless, media use as making contact with the information source can also be activating. Regardless of whether the activity is connected to accessing the information source, or inspired through the information content received from it, the concept of enactment emphasizes activating use of information and the media in the life of older adults. The division between indirect and direct enactment is clear in most cases (e.g., cases 3, 11, 13, 15), but to some degree indicative and open to interpretation in certain cases (e.g., cases 4, 5, 8, 9, 10).

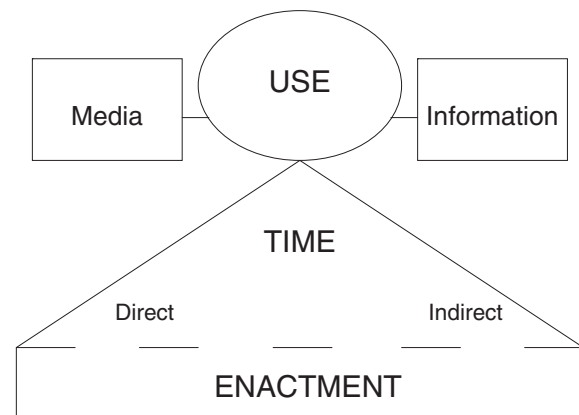


Fig. 1. Enactment in relation to the use of information and the media.

**Table 1**  
Forms, categories, and temporal dimensions of enactment.

Form	Category	Temporal dimension	
		Direct	Indirect
General routines and housework	1 Organizing the day		X
	2 Money matters	X	X
	3 Furnishing and gardening		X
	4 Having the TV or radio on as a background to one's activities	X	
	5 Visiting libraries, cafes, and free newspaper and magazine stands	X	X
Healthy lifestyle	6 Having an hour of devotion	X	
	7 Preparing food and cooking	X	X
	8 Exercising and engaging in healthy activities	X	X
Cognitive tasks	9 Maintaining foreign language skills	X	X
	10 Checking facts	X	X
	11 Filling in crosswords, playing, and competing for fun	X	
	12 Collecting documents	X	
Interaction with others	13 Contributing to societal discussion in the media	X	X
	14 Exchanging, lending, and recycling documents	X	
	15 Reading aloud to others	X	

### 5.1. General routines and housework

The retired high school teachers were asked to describe their typical day, and how radio, television, newspapers, magazines, books, and the Internet were connected to it. It is essential to note that the informants almost unanimously reported that the media are important in their everyday life. As media consumption occurred in the home, it often was an extraordinary place of information behavior and enactment.

#### 5.1.1. Organizing the day

Media use framed everyday life and set up a schedule for it, for example as follows: "First I circle TV and radio programs. That shapes the framework for this Thursday" (male, age 74).

Morning was typically the time for routine information behavior. Even though both television and radio may belong to mornings, retired Finns appreciated most of all the chance to leisurely read the newspaper. One woman said the media "has been a part of my mornings all my adult life... If for one reason or another this is interrupted, the start of the day feels ruined" (female, age 70).

The tendency to schedule the day according to media use was a time-connected aspect of information behavior. It related to information use in which the information received leads mostly indirectly to action. For example, hints about attending local events were offered by the printed and electronic media. Outdoor recreation, other physical exercises, shopping, and housework were often timed according to information received from the local newspaper.

#### 5.1.2. Money matters

Many examples of financial activity emerged, such as taking care of finances at the bank and investing in shares as a hobby. For example, networked banking services were used when reserving theater or opera tickets, booking flights, or reserving time for a game of golf via the Internet. Watching financial news on TV or reading about share values in a newspaper or on the Internet was more a hobby than an attempt to benefit in monetary terms from purchased shares: "I watched the financial news closely, which I feel are the best on TV3. Over the years I've purchased shares in various companies, and of course I'm interested in their exchange rates" (male, age 74).

Using online bank services, buying shares, and checking exchange rates in stock markets are examples of direct enactment. Saving money is a typical interest of older adults. When ideas for saving are delivered via the media, people are often likely to act accordingly, but not directly. Money matters represented direct but also indirect enactment and were assessed as an important part of subjective well-being by the informants.

#### 5.1.3. Furnishing and gardening

Females, in particular, subscribed to furnishing and decorating magazines and read related articles in the newspapers, got ideas from TV programs, and furnished their homes accordingly: "I watch all the interior decorating programs... The nesting instinct says what should be changed and how. I haven't gotten stuck in one place" (female, age 64).

Gardening interested males, but women seemed to be more active in getting information on gardening, for example from magazines and the Internet: "I visit the gardening web site because I'm a gardening fanatic" (female, age 64). Following many different channels was typical when furnishing or gardening, and enactment varied according to the seasons. Gardening magazines were read during the winter, although the information may have been put into action at the beginning of summer—in other words, the impact of the information in most cases (in Finland) was indirect.

#### 5.1.4. Having the TV or radio on as a background to one's activities

The media as a background to one's activities was typical for many informants. The radio or TV may have been switched on while doing something else, and concentrating on the program was not the main issue: "I have five radios, which I turn on in the place I'm in. In the kitchen it's on all day (Radio Finland). The 2nd one is upstairs, the 3rd in the garage workroom, the 4th in the car, and the 5th in the sauna dressing room (Music Radio)" (male, age 62). Media use in these situations is not totally serendipitous; however, it may have led to enactment in many forms, as "The radios are all tuned to specific channels" (male, age 62).

Older adults reported that the media as a background had positive effects on their subjective well-being. The media diary data offered several examples of practices when the TV or radio purposefully was switched on when riding an exercise bike, ironing, doing needlework, or housework. The timing of these domestic behaviors may have depended on the broadcasting schedule. Someone could listen to his or her favorite program in order to reduce the tedium of ironing. Thus, the relationship of the use of the radio or TV, for example, and ironing was interpreted as enactment. In this category, the impact of media use is direct.

#### 5.1.5. Visiting libraries, cafes, and free newspaper and magazine stands

Going to an explicit place, like a library or cafe, in order to access any form of information source, such as a book, a CD, or an Internet site, was an activity and form of enactment that took place outside the home. Regular library users usually assessed library services in a positive manner: "Libraries... are dear to me. I visit all kinds of libraries whenever possible. Without libraries my life would be poor and dismal" (female, age 61).

Free use of the library was important, as was equal delivery of library services throughout the country. Visiting the library and using its services reflected positively-valued direct enactment. First came the action, namely going, and afterwards the information obtained may have influenced other activities, such as indirect enactment.

For some older adults, a poor financial situation or unemployment could lead to their reading newspapers in cafes. Some collected free newspapers and magazines from delivery stands: "I take the City paper, Like news, Voima (Power), Cult Urban News, and the international multimedia network Aktivist paper from doordside distribution baskets... What a flood of information!" (male, age 63). These delivery

points included buses, shops, and people handing out free newspapers in the streets.

#### 5.1.6. *Having an hour of devotion*

Religious orientations as well as other spiritual commitments may have been connected to use of the media and information. The research provided evidence of spiritually-motivated enactment that had a positive impact on the subjective well-being of older adults. Some retired high school teachers and media diarists were accustomed to having an hour of devotion with a radio or TV program: “At the same time as I have my first cup of coffee, the Thursday morning religious broadcast service is on... Often during the morning devotion I soften, maybe because of low blood sugar, but I cross my hands and bless all those dear to me” (female, age 66).

The hour of devotion could lead to moving closer to the radio, joining in singing a hymn, holding a hymn book or the Bible in one's hand or preparing to record the program. The morning religious broadcast hour of devotion could also be a mutual form of direct enactment for a married couple but, however, it was a typical practice for only some informants.

### 5.2. *Healthy lifestyle*

#### 5.2.1. *Preparing food and cooking*

A great deal of information behavior was related to food. For example, a healthy diet was of interest to many older adults. Enactment occurred when senior citizens regularly watched a TV program to get new ideas for cooking. This was stated, for example, as follows: “And because I enjoy cooking, every morning I very eagerly watch the recipe on the TV program. It's nice to prepare something new every day” (male, age 64).

Recipes were sought from magazines, radio, text-television, and the Internet. Preparing food and cooking as a form of enactment was also connected to educational entertainment. Information was provided, for instance, on light TV shows by famous celebrities in an entertaining manner, but this did not necessarily lead to cooking. This category of indirect enactment refers to orienting information in older adults' information behavior, and enactment was in most cases indirect, although, sometimes it could be direct.

#### 5.3. *Exercising and engaging in healthy activities*

Health and physical exercise were closely linked to each other. Someone could exercise immediately after or while receiving information. However, it was more typical to get incentives to exercise after watching a TV program. Physical exercise as a result of media use could also be an activity shared with other people. This was stated by an informant as follows: “Now that we're retired, my husband and I exercise in the morning along with the program. We exercised this morning, too” (female, age 64).

In urban areas mail was delivered to the home, whereas in more rural areas people, including the older adults, went out of the house to collect delivered mail. The distance to the mailbox might vary from a few meters to a kilometer or even further, as stated by an informant: “I'd have to row a boat 400 m and walk 2 km. And then back again” (male, age 72.) As such, this kind physical action illustrated direct enactment.

Maintaining health could be seen as being connected to older people's media use and enactment. Particularly those informants suffering from heart and blood diseases, diabetes, or overweight problems tried to transform health information into action.

### 5.4. *Cognitive tasks*

#### 5.4.1. *Maintaining foreign language skills*

Maintaining foreign language skills activated older adults in many ways. Viewing TV programs broadcast in foreign languages, and such

viewing based on planned behavior and the intent to maintain foreign language skills, was understood as both direct and indirect enactment: “I watch German detective series for the language. I also watch Swedish TV and sometimes Deutsche Welle” (female, age 66).

Pronunciation, using a dictionary, and taking notes were different forms of direct enactment to maintain foreign language skills. This may have related, for example, to an interest in traveling abroad.

#### 5.4.2. *Checking Facts*

Checking facts as an activity was spurred by content delivered through the media. For example, the accuracy of information obtained from one medium might have been checked against information received from another source. This activity may have continued indirectly later as searching for information needed from magazines and the Internet. A 66-year-old man said, “I watched an astronomy program on the computer with my son-in-law.” Another man, aged 65, said, “I'm interested... in stars, so I look for heavenly phenomena on the Internet. Sometimes I take copies of satellite paths and maps of stars.”

In their media diaries the older adults described many situations in which information obtained through the media caused them to check its factuality. For example, when planning a journey, both the Internet and other people were used as information sources for finding more accurate information: “My wife has gotten information from the Internet. Her brother lives a couple hundred kilometers from Paris. He has given hotel recommendations. My son and my wife get schedule and ticket information from the Internet” (male, age 61).

Most indirect information checking was found among retired seniors whose hobbies require regular information searches—hobbies such as going to the movies, traveling, computing, taking notes on sports competitions, and genealogy.

#### 5.4.3. *Filling in crosswords, playing, and competing for fun*

Crosswords, competitions, and playing were distinct forms of direct enactment. The possibility of winning might have been an incentive to compete and play. Older adults often competed for fun, for example by answering a quiz with their spouse and checking the correct answers. Crosswords were important for keeping the brain functioning: “Every morning I have to do the crossword puzzle to get my brains 'rolling' ” (female, age 67).

Participating in the national lottery reflected enactment when the lottery was played on the Internet and the results were retrieved from different channels, for example from the newspaper or television.

#### 5.4.4. *Collecting documents*

Collecting documents and organizing material were a clear category of enactment that included both systematic and long-term, and accidental and short-term storage of printed and electronic material. Many older adults cut articles out of newspapers and magazines, record TV programs, and bookmark web sites at least occasionally. Actions like cutting, recording, and bookmarking were interpreted as illustrating the direct nature of enactment.

### 5.5. *Interaction with others*

#### 5.5.1. *Contributing to societal discussion in the media*

Being in contact with the media and publicly expressing one's own opinions through them contribute to societal discussion. Expressing opinions in a newspaper, on Internet sites, or calling a radio program are forms of direct enactment. Local issues often interested older adults: “I follow municipal politics and transport and regional planning very closely. Sometimes I get myself to write something in these discussions” (female, age 69).

Writing to the newspaper or web sites was clearly a direct type of enactment that was also mentioned in some media diaries.

### 5.5.2. Exchanging, lending, and recycling documents

It was typical for older adults to exchange and lend different kinds of documents such as magazines, books, and audiovisual recordings. In addition, documents were recycled, that is, materials that were no longer needed were given away. It increased the number of magazines and journals read by older adults and may have included daily social interaction. For example, a 61-year-old woman said, "We have an agreement with the 35-year-old couple upstairs, where I give them the Sunday Helsingin Sanomat (newspaper) and they put the local paper in my mailbox." Another woman said, "I record recommended shows and children's programs (a lot) and send them to my son's family abroad" (female, age 69).

Exchanging, lending, and circulating documents reflect direct enactment and may be characterized as communicative delivery of documents.

### 5.5.3. Reading aloud to others

Reading aloud activated both the reader and the listener; at least two parties acted together. The media diaries described situations in which spouses read aloud to each other and then discussed the text. For the elderly, the reason for this practice may have been visual impairment: "Because of my wife's eye disease, she can only read the headlines, so... I've begun reading the most interesting articles aloud" (male, age 72).

Reading aloud related to shared direct enactment that also had a relaxing effect. Enactment occurred in reading and listening, but also in gaining stimuli for discussions that could enrich communicative interaction.

## 6. Discussion

No in-depth studies on older adults' everyday information behavior have focused on the activating role of media and information use, even though it may promote healthy aging, and also well-being in later life. The limited research (Williamson, 1997, 1998) in this area is added to by answering three research questions: First, in which ways does media use have an activating role in the everyday life of older adults? Second, what physical, cognitive, and social aspects of enactment are connected to information use among older adults? And third, what temporal dimensions of information and media use characterize different forms of enactment?

The concept of enactment is presented as a new tool for research and theoretical thinking in exploring the activating role of information and media use.

### 6.1. Theoretical implications for research

The idea of enactment is an attempt to conceptualize a phenomenon that has not been examined earlier in LIS, communication sciences, or gerontology. The conceptualization contributes to further studies concerning enactment connected to well-being and other issues in everyday life. Enactment further elaborates Wilson's concept of concern and caring in an empirical setting of older adults' information use in everyday life (Wilson, 1977). Enactment as proposed has in its different forms the same basic idea of caring about personal as well as public matters on the individual level. For example, general routines and housework dominate personal activities, and contributing to societal discussion in the media belongs to public spheres.

The time value and timing of information use, which have seldom been examined in research (Solomon, 1997), were included into this study as direct and indirect actions. Direct enactment can be viewed as being related more closely to problem solving, cognitive tasks, visiting information delivery points, and interaction with others. Indirect enactment, in turn, is linked to orienting information dealing with general issues in life. Still, for older adults, both direct and indirect

means for everyday activation had an impact on their physical, cognitive, and social well-being.

Health information has increasingly attracted researchers in information disciplines (Bath, 2009). Pálsdóttir (2008, 2010) studied everyday health information and lifestyle matters among Icelanders, areas that relate to the interest in older adults' information use in maintaining a healthy lifestyle. It is noteworthy that enactment connected to food and diet, physical exercise, and prevention of common diseases is commonly indirect, so that information use may be delayed and may take place on a lengthy time scale. Participating in religious activities, such as prayer and meditation, serves to promote a sense of purpose, value, and meaningfulness for older adults (Lawler-Row & Elliot, 2009), and these findings support this view.

Different media channels provide content of information that promotes engagement in tasks that enhance mental well-being and maintenance of cognitive skills in later life. Cognitive tasks as a category of direct enactment were typical of the informants in this study. Williamson (1997, 1998) discovered that there were some topics for which there was a considerable amount of purposeful use of television, in particular. Examples were health and consumer programs, which many informants watched avidly.

Information use as direct enactment also extends to socially interactive and communicative information sharing. The content of information and channels of information delivery are an integral part in this kind of activity relevant to older adults. It should be noted that having social contacts positively impacts well-being. Also, it has been shown that at least moderate participation in activities is an adaptive strategy that compensates for social and physical deficits in later life (e.g., Baker et al., 2005). Everyday media use evidently promotes active participation in social networks and represents direct enactment.

A closer examination of enactment as a conceptualization of information use is needed in future studies. The temporal dimensions of enactment should be further examined in a study involving a broader population. Moreover, empirical research should be conducted in the online Web 2.0 environment among different groups of people. Networking in social media also is a phenomenon which may have an activating influence on the elderly to an extent that was not relevant at the time of the data collection (2001 and 2004) and which may have an influence in the future. Enactment is currently being applied in a project related to the activating role of information and use of modern information and communication technology in the context of promoting physical activity among young men.

### 6.2. Implications in practice

As the share of people aged 65 years or over in the total population of the European Union, Norway, and Switzerland is estimated to increase from 17.1 percent to 30.0 percent by the year 2060 (Giannakouris, 2008), this age group will also become salient in the research of LIS. On the basis of the criteria for successful aging (Rowe & Kahn, 1998), it can be claimed that an active hold on life and good cognitive ability are evident in many informants' everyday information behavior. Moreover, enactment imposed by older adults' use of the media, such as performing and participating in common activities, meets the criteria of ICF.

Use of information and the media affects people's everyday activities in many ways. In light of the findings on healthy lifestyle, cognitive tasks, and social interaction with others, enactment is a part of information behavior that maintains human well-being. These findings indicate the importance of providing the growing number of senior citizens with suitable information about health and appropriate means for engaging in cognitive tasks and social interaction from both the LIS and gerontological point of view. Older adults' experience of sustained engagement in activities and maintenance of

everyday functions can be strengthened by necessary and inventive use of the media and information.

### 6.3. Limitations of the study

How enactment relates to different media was not explored in this study, as none of the categories of enactment were related to using a single information channel or medium. The foci were on the positive aspects of media use. Therefore, the potentially pacifying effect of TV consumption on its audience, or some other negative impacts of the media, such as addiction or mental information overload, should be examined too.

An evidence-based concept related to media and information use was explored, along with the wider concept of everyday life information behavior. The total of 319 older Finns as informants limits the generalizability of the findings mainly to their age group and socio-cultural contexts similar enough to those of the study. The 15 categories were created through content analysis of the interviews and the media diaries. Therefore, not all possible categories typical of older adults are presented, but rather some representational examples of the phenomenon. Nevertheless, the concept of enactment is described and defined for future applications and potential modifications.

## 7. Conclusion

How information and media use affects the everyday life of older adults was studied. A qualitative approach in LIS research on everyday information behavior and use of information and the media was presented, and on the basis of the findings, the activating role of their use in the life of older adults was confirmed. The importance of the time value and timing in information and media use was also pointed out. Although the approach was restricted to dividing the forms of enactment into direct and indirect, clearly the temporal dimension of information use should be further elaborated in LIS research. A fertile area of research would be to scrutinize in depth the phenomena that link use of information with its temporal dimensions in different contexts.

The concept of enactment presented here is a theoretical tool that provides a new perspective on the consequences of information and media use on successful aging in later life. The concept of enactment may be applied in future studies to different age groups or other groups of people. This allows a more comprehensive picture of the possible forms of enactment, or perhaps the forms of enactment specifically typical of certain groups, in order to increase the understanding of the use of information and the media as part of people's information behavior in everyday life.

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