

Transition Patterns in the Use of the Cell Phone among Senior People

Ayako Hashizume^{*1}, Masaaki Kurosu^{*2} and Toshimasa Yamanaka^{*1}

Abstract - It is frequently pointed out that there is a difference among senior people in the use of high-tech devices such as the cell phone. But the empirical evidence is few to be found regarding details on the relationship between the literacy and the use of such devices. In this paper, authors conducted a research focusing on the use of the cell phone mail by senior people. The result of the interview showed there are different transition patterns in the use of the communication media that come from the difference in the literacy for high-tech devices and the use of the cell phone among senior people.

Keywords : senior people, cell phone, literacy, motivation, universal design.

1 Introduction

It is frequently pointed out that senior people are not skillful for using high-tech devices such as the cell phone and the personal computer (PC) and that they are not using such devices actively. In Japan, it is reported that senior people, whose population is about a half to one-third of their 20's, 30's and 40's, are now using the cell phone and the number of senior people who use the cell phone is gradually increasing, according to the white paper on information and communication in Japan [1]. But there is less amount of information on how they are actually using the cell phone.

In our earlier study [2], it was found that senior people do not know and do not use as many functions as young people do with a very small number of exceptions. And it was also found that they tend to rely on other people rather than to try to solve problems for themselves. However, there are a certain number of senior people who have a high level of literacy for the cell phone and are using various functions of the cell phone. It is usually said that the level of literacy for using the cell phone among senior users differs depending on the residential area [3]. Hence we decided to include the senior people living in the rural area as well as in the town area in this study to get the average level of tendency of senior people.

In this paper, we focused on the use of the cell phone mail. This kind of qualitative study is important in order to foresee the coming of the aging society that is becoming one of the crucial problems in Japan.

2 Methods

The interview was conducted for 24 senior people of their 60's and 70's (12 male and 12 female) who own the cell phone. Their average age was 68.49. Regarding the senior people, we defined them as those who are over 60, whereas WHO defines them as those over 65. It is because the senior people usually retire from their job at around 60 in Japan and their life environment changes drastically around that age.

The interview took total of 4 hours per informant and it was conducted at their home. The method used was a semi-structured interview.

At first, we gave the instructions to informants about the purpose of the interview, the approximate time required, the condition for answering questions, and the protection of personal information. Then we asked about their family relationship as well as their friendship and their personal history on the use of the cell phone, before starting to ask question items.

2.1 Content of the Questionnaire

Question items were categorized into 4 groups as follows.

- (1) General information on the use of the cell phone: the event that triggered them to use it, the frequency of use, the time available for using it, the main purpose, the location, the situation, major problems of usability, etc....
- (2) Questions about the use of calling function: the frequency of use of the land line, the purpose of use of the land line, how to differentiate the use of the land line and the cell phone call, the change of frequency of use of the land line as they started to use the cell phone, how to differentiate the use of the cell phone call and the cell phone mail,

*1: 筑波大学大学院 人間総合科学研究科

*2: 総合研究大学院大学 メディア社会文化専攻

*1: Graduate School of Comprehensive Human Science, University of Tsukuba.

*2: Department of Cyber Society and Culture, Graduate University for Advanced Studies.

etc....

- (3) Questions about the use of mailing function: what motivated them to use the cell phone mail, the reason why they are or are not using the cell phone mail, the PC and internet mail, the frequency of use of the cell phone call and the cell phone mail, how to differentiate the use of the cell phone mail and the internet mail, etc....
- (4) Questions about other communication media: the frequency of use of other communication media, how to differentiate the use of other communication media and the cell phone, the frequency of use of other communication media, the frequency of use of the face-to-face communication, etc....

2.2 Methods of Analysis

At first, we transcribed the verbal recording of the interview with senior people. Then we applied the Grounded Theory Approach (GTA) to the transcribed data. We obtained various kinds of data, but in this paper, we will focus on the use of the mailing function of which not all of the senior people are using actively.

3 Results

3.1 Transition of the Use of the Cell Phone Mail

The transition of the use of 4 types of communication media including the land line, the PC (internet) mail, the cell phone call and the cell phone mail is shown in Fig.1. In each case, the calling by the land line is located as the first step, in other words, all the senior people installed the land line at first hand. It was found that there are major 3 types of transition patterns as follows: (a) those who are using only the calling function of the cell phone (6/24 people), (b) those who used the cell phone

call when they purchased it and then started to use the mail function (6/24 people), and (c) those who started to use both of the mailing function and the calling function at the same time when they purchased the cell phone (5/24 people). In the case of (c), there are those who “bought the cell phone for mainly using the mail (3/5 people),” and those who “learned how to send the mail from his/her child in preparation for emergencies (2/5 people).”

As shown in Fig.1, there are 4/24 senior people who are using a combination of 4 types of communication media including the PC (internet) mail.

In every case, once they started to use a new communication media, they kept using the existing media. They selectively used the communication media depending on the purpose and the situation. However, the use of conventional communication media, i.e. the land line, decreased in frequency. In other words, the use of the land line became less frequent when they started to use the cell phone (16/24 people).” 7 of them said that the land line became of no use when they started to use the cell phone.”

3.2 The Use of the Cell Phone Mail

17/24 senior people who don't use the PC (internet) mail gave following reasons why they are not using it: “I do not own the PC (8/24 people),” or “I am using the PC but not accessing the Internet (3/24 people).”

And 9/24 senior people who did not use the cell phone mail answered following reasons, “It's bothering to learn how to operate it (4/24 people),” “Mailing function seems to be convenient and I would like to use the mail, but I have no one to send the mail (2/24 people).”

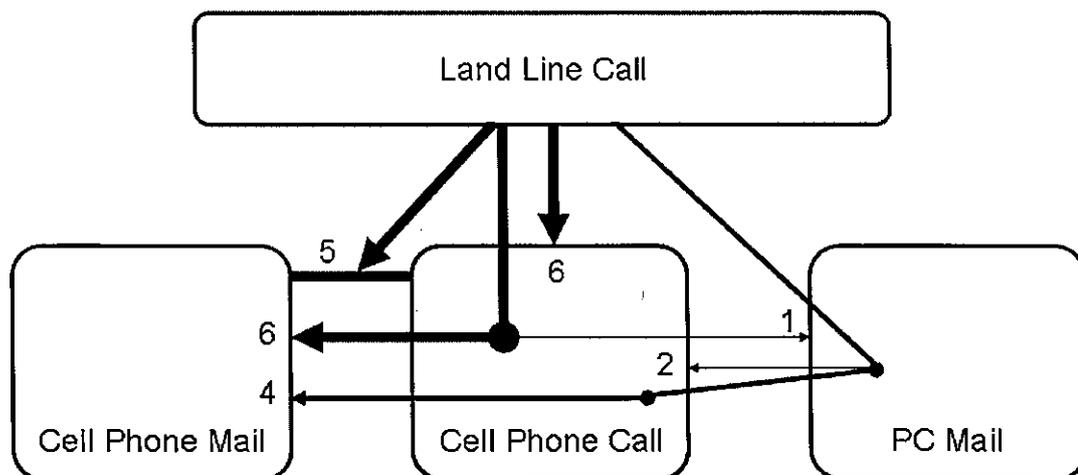


Fig. 1. Transition Flow of the Use of the Communication Media (n=24 senior people).

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When they use the cell phone mail, the recipients of the mail were “their children and friends who are 30-40 year old and are younger than themselves, because most of the friends of their age can’t use the cell phone mail (2/24 people).” They are communicating with “their children and friends including senior people of their own generation (10/24 people).” 3 senior people who purchased the cell phone “so that I can communicate with my friends via cell phone mail (3/24 people)” were stimulated by their friends who are exchanging cell phone mail with their friends.”

Moreover, some senior people who are using the cell phone mail now were thinking that it seemed to be difficult when they started to use it. But after they started to learn to use it “I became able to use it by the support of my children who taught me how to use it (3/24 people)”, and some others are “able to use it now, after the trial and errors (2/24 people).” 4/24 senior people said that “since I started to use the cell phone mail, the frequency of use of the cell phone as a whole was much increased because it is efficient.”

4 Conclusion

This survey showed why some senior people do not use the cell phone mail actively. Many senior people regarded the use of the cell phone as bothersome that can be attributed to the difficulty of use. It can be related to the self-efficacy or the self evaluation on the capability for operating the complicated device such as the cell phone. It can also be related to the fact that the senior people used to limit the range of their life within a certain extent and do not dare to try new things.

One way to solve this situation is to persuade them to use the cell phone mail by giving the deliberate explanations. But more important thing should be to design the cell phone that can easily be used even by the senior people with low level of self efficacy.

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