# Why do people publish weblogs? An online survey of weblog authors in Japan

A. Miura<sup>1</sup> & K. Yamashita<sup>2</sup>
<sup>1</sup>Department of Psychology, Kobe Gakuin University, Japan
<sup>2</sup>School of Network and Information, Senshu University, Japan

#### **Abstract**

This research was conducted to examine the psychological profiles of people who publish their weblogs on the Internet. Weblogs can be defined as on-line sites, not owned by major corporations, which are frequently updated by one or more people. Weblogs provide an opportunity to develop communication with other Internet users. We categorize weblogs into two types, according to their style and content. The weblog form, in which the authors have a powerful desire to share their knowledge and provide information, is termed the "informative weblog". The other weblog form, in which the authors have powerful need for self-disclosure and the resulting interactions, is termed the "diary-like weblog". In this study, we conducted an online survey of 1,142 weblog authors to examine the current weblog situation in Japan. We obtained two hypotheses from the results, as to why weblog authors are motivated to continue weblogging.

Keywords: diary-like weblog, informative weblog, online diary, questionnaire, survey.

#### 1 Overview

We conducted an online survey of weblog authors, known as webloggers in Japan. Weblogs, also known as blog, are now one of the most popular personal content sites on the World Wide Web (WWW). Weblogs have gone from being a marginal activity of Internet enthusiasts, to being squarely mainstream. Weblogs are frequently updated (at least once a day, or more times in some cases) and are characterized by their communication-oriented content.

In Japan, before the emergence of weblogs, a similar trend, known as online diaries, was popular with Internet users. From the inception of personal websites



around 1994, many websites contained "diary" sections. With the rapid and widespread growth of the web, online diary authors began to form their own communities and to develop some original tools for online diaries, causing them to become more popular than ever. Moreover, since around 2000, many Internet service providers have begun to offer users free Web services for online diaries. Even Internet users with little HTML knowledge or skills, could easily become an online diary author. In other words, before weblogs appeared on the web, there were many active online diary authors and communities.

Early in 2001, weblog tools developed in U.S. were introduced to Japan and caught the attention of enormous numbers of Internet users. Even Internet users, who had no interest in online diaries, became intrigued with weblogs. Together, online diaries and weblogs have become extremely popular.

#### 1.1 Online diaries

People can transmit personal information in various forms over the web. The most popular form is to create and publish personal websites or homepages. On personal homepages, there are two main types of content, self-description, and interaction with others. Online diaries are like a junction of these two types.

Kawaura et al [1] investigated the situation of online diary authors. They conducted a survey of 337 online diary authors, examined the reasons they maintained their online diaries, and the role of online diaries as computer-mediated communication (CMC) systems. They regard online diaries as a venue for self-description in public spaces. According to the survey results, they suggested that personal online diaries were a realization of the authors' desire for self-description and also fulfilled their need for communication with others. In addition, the path analysis results confirmed the causal relationship that the psychological need for self-disclosure had a significant effect on the authors' intention to maintain their online diaries. In other words, most online diaries can be defined as content on a personal website that allows the participation of others and establishes personal communication between the author and others.

	Expression content			
Orientation	Fact	Sentiment		
Self	Memoir	(Narrowly defined) diary		
Relationship	Journal	Open diary		

Table 1: Basic diary types.

Cited from Kawaura et al [1].

Kawaura *et al* [1] divided online diaries into 4 types, based on two dimensions (Table 1). One dimension is its content expression (fact or sentiment), and another is its orientation (self or reader). The four types of online diaries are memoirs (fact and self-oriented), journals (fact and reader-oriented), narrowly defined diaries (sentiment and self-oriented), and open diaries (sentiment and reader oriented). The results of their survey confirmed the

validity of this categorization and revealed that the ratio of each type was almost equal. (The ratio of narrowly defined diaries was slightly lower than for the others. Other studies about online diaries confirmed the validity of this categorization (e.g. Murata [2], Sugawara and Narukami [3]).

# 1.2 Online diaries versus weblogs

It has been more than 5 years since Kawaura et al's survey [1] was conducted. Since then, the Internet has matured greatly as a communication medium. Following this trend, weblogs have become increasingly popular amongst Japanese Internet users. Weblogs are websites that contain periodic, reverse chronologically ordered posts. Authors add new topics (i.e. some information or hyperlinks to information sources) to their weblogs daily. Readers are allowed to comment on the posted topics freely, and often anonymously. A participatory online community between authors and readers in weblog sites emerged.

Many academic researchers and Internet users are now debating whether weblog and online diaries can be regarded as the same personal website content or not. For example, some people discriminate between the two and define online diaries as content that includes private and immediate topics, whereas they define weblogs as content that includes the authors' opinions or comments about social news and events. Others focus their attention on weblog modules, such as trackback, which enhances personal communication between the authors and readers. Trackback enables authors to automatically notify another weblogs about new entries. A link to their site will appear in that weblog's list of trackback pings, inviting visitors to visit their weblog. Depending on the absence or presence of these modules, many researchers argue that weblogs are novelties, and not the same as existing online diaries. However, most of existing tools or services for online diaries have modules that enhance personal communication. Some weblogs published, using a Movable Type weblog tool, address highly private and immediate topics.

Consequently, we believe that there are no fundamental differences between online diaries and weblogs. Online diaries and weblogs both have individual authors who record and publish their personal and social experiences and comments. There may be differences in the authors' motivations between online diaries and weblogs. As suggested in Kawaura et al's study [1], authors of online diaries have a strong need for self-disclosure and the resulting mutual exchanges with readers. On the other hand, weblog authors who want to share their knowledge with others, have not yet been investigated. We believe that it will be valuable to study the psychological profiles of people who publish their weblogs on the Internet.

As described above, there are no substantial differences between online diaries and weblogs. But we need to define a given continuous index that can readily identify weblog-like and online diary-like features. This will enable us to examine the differences in the various psychological profiles and motivations of online diary/weblog authors. We also need to explore some changes in the ratio of the four types (Kawaura et al [1]) that are caused by weblog imports, and the consequent increase in authors.

## 1.3 Redefinition of weblogs

In this study, we will refer to online diaries and weblogs together as "weblogs". We redefine weblogs as widespread content, which can satisfy the authors' desire for both self-description and interaction with others. One form of weblog, in which the authors have a powerful need to share knowledge by providing information, is called the "informative weblog". The other, in which the authors have a powerful need for self-disclosure and the resulting interactions, is called the "diary-like weblog." Furthermore we will try to define an appropriate continuous index that can readily identify informative and diary-like weblogs. By categorizing weblog authors using this weblog index, the causal relationship between their psychological profiles and motivations for maintaining the weblog will become more apparent. It will also lead to a more lucid understanding of the role of weblogs as personal websites.

Based on previous studies of online diaries and actual weblog conditions, we conducted an online survey of weblog authors in Japan. In this paper, we will give an outline of the survey and examine the present situation surrounding weblogs and their authors.

# 2 Method

## 2.1 Respondents

The respondents in this study were people who had kept and published some sort of weblog on the Internet. The subjects were Internet users who used the Internet service named "Hatena" (URL: http://WWW.hatena.ne.jp). Hatena has provided a free service for weblogs called the "Hatena diary" (URL: http://d.hatena.ne.jp) since March 2003, and has the most registered users in Japan. By January 2004, the total number of hatena diary users (authors and readers) reached 2.02 million (Netratings [4]). The Hatena diary mainly provides support for making diary-like weblog content, but it also has various functions for making informative weblog content, such as automatic hyperlinks of keywords or categorization of specific topic content. Weblog authors who use the Hatena diary service can publish either diary-like or informative weblogs, according to their preference.

#### 2.2 Procedure

With the collaboration of Hatena Co., Ltd., we sent e-mail to all of the subjects on March 1, 2004, requesting them to take part in the survey. They were asked to access the website address listed in the e-mail, and fill in the survey form posted there (URL: http://www.team1mile.com/asarin/research/04survey/survey.html). The replies were then automatically stored in our CSV-format data files. At the beginning of the survey, the number of weblogs on the Hatena diary was 28,541. The website for the survey was accessible from March 1 to 14, 2004.

### 2.3 Questionnaire

The questionnaire contained more than 100 questions related to weblogs, such as reasons for keeping weblogs, the advantages/benefits of weblogs, individual personality, demographic traits, and psychological variables such public/private self-consciousness).

#### 3 Results

# 3.1 Outline of respondents

The total number of responses was 1,434, of which 1,142 were considered valid after eliminating incomplete questionnaires, illegible replies, and duplicate responses. The demographic traits of the respondents are listed below:

There were 783 males (68.6%) and 359 females (31.4%). The respondents fell into the following age categories: teenage, 119 (10.4%); twenties, 602 (52.7%): thirties, 339 (29.7%): forties, 67 (5.9%): over fifty, 15 (1.3%). The distribution of the respondents was almost the same as that of the hatena diary register. This also suggests that these respondents would be good representatives of weblog authors as a whole.

Respondents were divided into 3 groups based on the year they began their weblog; the first generation (before 1999), 250 (21.9%); the middle generation (2000-2002), 314 (27.5%); the later generation (after 2003), 578 (50.6%). Table 2 shows the anonymity levels of the respondents, (anonymous, using a screen name unrelated to their real name, using a screen name related to their real name, and using real name), as weblog authors by generation, group, and gender. In all generation groups, female authors tried to protect their anonymity more than male authors, particularly in the middle generation. This generation coincides with the appearance and popularization of free Web services for online diaries.

	First generation		Middle		Later	
Anonymity			generation		generation	
	Male	Female	Male	Female	Male	Female
Anonymous	3.7	5.8	4.6	3.4	7.8	9.1
Screen name unrelated	44.8	59.8	46.9	73.7	49.5	61.0
Screen name related	34.4	21.8	32.1	20.3	30.0	22.7
Real name	17.2	12.6	16.3	2.5	12.7	7.1
Respondents	163	87	196	118	424	154

Table 2: Anonymity of weblog authors by generation group and gender (%).

# 3.2 Weblog types

The respondents' weblogs were categorized into four types, based on the responses for two items. We asked the respondents, "Why do you think you



publish a weblog?". They were asked to select one of the five answers; 1) keeping notes of everyday occurrences for myself, 2) offering information I pick up daily to others, 3) letting people know me better as a person, 4) understanding myself better, and 5) no particular reason. These answers corresponded to the weblog types, memoirs, journals, open diaries, and narrowly defined diaries, respectively. We then asked the respondents to select one from the four types.

	Kawaura et al [1]	Reason question	Direct selection
Memoir	24.4	47.4	24.3
Journal	24.1	18.7	19.4
Narrowly defined diary	14.3	11.9	22.1
Open diary	23.1	9.9	34.3
No reason	13.1	12.1	

Table 3: The ratio of each weblog types (%).

Table 3 summarizes the ratio of each weblog type, categorized based on each of two questions from this study and comparing the answers to that of Kawaura *et al* [1]. In the first question, the existence of all four types was confirmed, and nearly half of respondents selected "keeping notes of everyday occurrences for myself." In the case of the second question, the existence of all four types was also confirmed.

# 3.3 Motivations of weblog authors: diary-like and informative

Five items were chosen to objectively determine the motivations of the weblog authors, (self-description and interaction with others, or knowledge sharing by providing information): 1) recording units of each weblog (topic or date), 2) content of each weblog (social/public or private), 3) necessity for any category (no or yes), 4) necessity for reference to other weblogs (no or yes), and 5) necessity for author's profile for easy understanding (no or yes). Respondents were asked to rate each item on a five-point scale. The scores for each of these five items were summed up and used as the weblog index score. Gender differences were average scores on the weblog index. Male respondents had a significantly higher score (M=14.37) than female (M=12.94), which suggests that male weblog authors are more interested in knowledge sharing than female authors.

According to the score distribution of the weblog index, the respondents were divided into 3 groups, high, middle, and low informative (Table 4). Then, the average scores of the various questionnaire items related to the weblog were compared. Though the frequency of updating the weblogs was significantly higher in the high informative group than the other groups, both the amount of time spent updating their weblog and the volume of text per update were not significantly different among the groups. There was no significant difference among the groups in mental stress and their intention for continuing to weblog.

Table 4: Weblog index and distribution.

Group	Score	Frequency	
High informative	Over 15	373	
Middle informative	12 to 14	424	
Low informative	Under 11	345	

Table 5: Ratio of perceived interest of readers (%).

Interested in	High	Middle	Low
Information	26.0	39.1	59.4
Personality	74.0	60.9	40.6

Table 6: Ratio of their own interest in other weblogs (%).

Interested in	High	Middle	Low
Information	35.7	39.1	57.4
Personality	64.3	60.9	42.6

To compare the interest of the respondents in the weblog content, along with the weblog index, we calculated the ratio of the perceived reader interest in their own weblogs (Table 5) and the ratio of their own interest in other weblogs (Table 6) by groups. The respondents in the high informative group believed that their readers were interested in the information on their weblogs, whereas the people in the low informative group believed that their readers were interested in their personality traits, not included their weblogs. As shown in Table 6, a similar trend was found in their own interest in other weblogs. These results suggest that the weblog index used in this study was valid for discriminating the motivations of weblog authors, informative or diary-like.

#### 4 Discussion

In this study, we were interested in the psychological profiles of people who publish their weblogs on the Internet, and conducted an online survey. Results from preliminary data analysis clarified the differences in weblog behaviour by gender or generation group and suggested that the weblog index used in this study was valid for discriminating the motivations of weblog authors, informative or diary-like.

Based on the results of the Kawaura et al's previous study [1] and our survey, we propose two hypotheses to discover why weblog authors were motivated to continue publishing their weblogs. By testing these two hypotheses, we will be able to clarify the relationship between individual personality, psychological variables and the various behaviours of weblog authors. In diary-like weblog authors, the higher their self-consciousness was, or the more positive emotional feedback they received from their readers, the higher they valued their weblogs, increasing their gratification levels and strengthening their intention to

continue their weblogs. On the other hand, in case of informative weblog authors, the more significant their information was, or the more comments or additional information they received, the more they valued their weblogs, increasing their gratification levels and strengthening their intention to continue their weblogs. We will construct a causal model for continuing publishing weblogs by structural equation modelling, based on this data.

In recent years a new-found weblog content has rapidly combined with existing online diaries to provide a new style of online communities, centering on personal websites in Japan. This could lead to a more integrative understanding of personal behaviour on the web, that will assist in the construction of a new model, with a view to exposing the behaviours of weblog authors.

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