What attributes do existing web blog need?

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ABSTRACT
Blog is an on online diary which is a personal record through webpages which includes the functions of automatic exchange, immediate updating, casual posting, and link exchange. People not only can type posts and upload their pictures to their web albums but also record their daily life with the web space instead of writing in the diary. However, the blog which users want is provided with the functions and attributes or the final value which users want and will pursue while using their blogs. Both of these are research questions which need to be further discussed. Thus, this research adopts means-end chains as the theoretical basis and uses attributes-consequences-values as the interview structure which deeply investigates the needs of blog users. The research results showed that users think according to the sequence, important attributes of Blogs are *blog writing, photo album, personalization, special functions, discussion/messages/reply*. Hierarchical value map is further drawn to explain above attributes according to the interview result. This research aims on understanding of blog users' use factor and needs and expect that the research results can assist dealers of blog platforms to continuously develop and improve functions and the quality of platforms to provide blog platforms which meet users' need more.

Keywords: Web blog, Means-end chains, Laddering, Attributes, Consequences, Values

INTRODUCTION
The sustainable development of the Internet prompts transmission of information to be fast and convenient. The time which people use internet is more, and besides, their daily life is getting inseparable with Internet. Web allows the Internet to become richer and its sound, graphics, images, web multimedia program players, and other components let websites become more diversified. Internet is provided with features of interactive communication, recreation, and entertainment which allows more and more people take part in discussions, write their blogs, and upload their photos to web albums on the internet. People record their daily life with the web space instead of writing in the diary. Although Facebook has already become a platform in which most people record their daily life, blogs still provide us with an indelible existing value.

The blog is a technology platform which is easy to use and supports the users to present their personalized features. Whether they are posts, pictures, photos, music, or even movies, blog content can be diversified through the technology platform provided by the hosting of blog. As a result, users have plenty of time to browse the Internet, and it has also changed the lifestyle of many people.

This research is based on the "Means-end chains" theory that is often used in the marketing field to explore consumer demand to interview people who have experience of using blogs deeply, try to understand the attributes, consequences, and values that users consider when users are using blogs. This is done through the drawing of the historical value map (HVM) to construct the attributes-consequences-values architecture and then analyze the users' needs. The results of this research can help the hosting of blogs to develop and design blog functions that are more in line with the users' needs, thereby satisfying the final value of the users' desires.

THEORETICAL FRAMEWORK

Web blog
The Blog is the abbreviation of web log, which refers to the visitor's log file recorded by the web server. Its function is to know the server traffic and visitors' activities. The Blog refers to the personal records presented by the web as a medium. The Blog is an online personal diary, and the authors manage the information according to the rules by themselves. The Blog is a media in the center of authors to emphasize the absorption of information and the attitude of sharing life and symbolizes the values and beliefs of authors. Whether it is the trend of the times, media reports or the catalysis of online activities, the use rate of blogs has increased, and make "interaction, participation, sharing" become the main feature of the Blog's segment communication in the future.

Means-end chains theory
Olson and Reynolds (2001) proposed that the purpose of the Means-end chains is to understand the reasons for the users' decisions through interviews, and to explain the users' behavior by the links between the elements. Gutman (1982) showed that Means are activities or things that people engage in, and Ends are states of value such as happiness, safety, achievement, and so on. The Means-end chains model is to explore how users choose through goods or services to achieve the final states of desires, and is also a simple structure of links attributes, consequences, and values.

The three main elements that make up the "Means-end chains" analysis logic are attributes, consequences, and values, and the feeling of the positive result can be called consumer benefits (Reynolds & Whitlark, 1995). Olson and Peter (1993) believed that the "meaning of attributes" of the Means-end chains is given by the users' cognitions. It is equivalent to what consequences and values of the Blog technology platform mentioned in this research can bring. In other words, the attributes of the Blog technology platform are regarded as a method to achieve the purpose, which may be a kind of consequence.

METHODOLOGY
Reynolds and Gutman (1988) proposed that laddering is the most common method of use for building "attributes-consequences-values" structures. Laddering advocates that consumers themselves have no direct relationships with product attributes, results and values, namely, there is no specific method and purpose in the minds of consumers. Therefore, how to guide consumers to link the attributes of products, results and values which are respected for in the heart of consumers, then to complete the structure of the means-end chains is the main purpose of laddering. Laddering uses one-to-one interview techniques deeply to discover the "attributes-consequences-values" link architecture in the heart of consumers. And as such, the study adopted purposive sampling and open call for the selection of 50 blog users for the in-depth interviews. The samples falling between the ages of 16–30.

After Laddering, in order to simplify and analyze the content of the interview to extract

important information, it needs to analyze and quantify the individual respondents through data analysis. This research used content analysis to further analyze the consumer ladder which obtained from the interview. The respondents' answers are classified by coding to determine the level of abstraction to which the answers belong, and are finally presented in the "attributes, consequences, and values" classification method. With 12 attributes, 11 consequences and 8 values, the study features a total of 31 elements (as shown in Table 1).

The Implication matrix summarizes and quantifies the link relationships mentioned in all interviews and it is also the basis of drawing HVM. The rows and columns of the Implication matrix represent the elements of each attributes, consequences, and values, while the numbers within the matrix represent the times of links between the elements. The Implication matrix aggregates the times of links between all the elements and processes the construct of the HVM with the quantitative data in the matrix (Reynolds & Gutman, 1988), to express the respondent's demand for the Blog. In this research, input from 50 respondents formed a total of 541 value ladders (on average 10.82 ladder per respondent) and a total of 1,283 chains (on average 25.66 chains per respondent) (implication matrix as shown in Table 2). And this research used cutoff value = 12 as the rendering standard for HVM (HVM of blog users as shown in Figure 1).

Table 1. Item codes of web blog.

Elements	Item		Citation	
			Frequency	Percentage (%)
Attributes	A01	Reputation/Popularity	23	4.25
	A02	Word of Mouth	24	4.44
	A03	Free File Hosting	10	1.85
	A04	Blog Writing	157	29.02
	A05	Photo Album	79	14.6
	A06	Discussion/Message/Reply	45	8.32
	A07	Privacy Right	40	7.39
	A08	Special Function	57	10.54
	A09	Personalization	57	10.54
	A10	Upload a Video	9	1.66
	A11	User Interface	38	7.02
	A12	New Function Expected	2	0.37
Consequences	C01	Cluster	176	23.72
	C02	Economy	9	1.21
	C03	Easy	15	2.02
	C04	Browse/Search Information	31	4.18
	C05	Increase Knowledge	31	4.18
	C06	Data Backup/ Security	42	5.66
	C07	Convenience	124	16.71
	C08	Entertainment	44	5.93
	C09	Commemoration	38	5.12
	C10	Share/Record	140	18.87
	C11	Independence	92	12.40
Values	V01	Security	41	7.58
	V02	Sense of Accomplishment	33	6.10
	V03	Fun and Enjoyment of Life	30	5.55
	V04	Warm Relationships with Others	62	11.46
	V05	Self-fulfillment	4	0.74
	V06	Happiness/Joy/Fun	229	42.33
	V07	Satisfaction	124	22.92
	V08	Yearning	18	3.33

Table 2. Implications matrix of web blog.

|	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10	C11	V01	V02	V03	V04	V05	V06	V07	V08	Total
A01	11					1	6	3		1	1									23
A02	11				1		5	5		1	1									24
A03		4					3		1	2										10
A04	25	1		16	2	1	28	5	7	69	3									157
A05	8			7		7	6	6	10	30	5									79
A06	35	1					7	1			1									45
A07						23	1				16									40
A08	14						22	9		2	10									57
A09	1						3	6		7	40									57
A10				1				1	1	6										9
A11	3	1	2			2	23	1		2	4									38
A12		1					1													2
C01				3			7	3		4	2	1	5	3	55		79	14		176
C02							1										5	3		9
C03									1			1		1			9	3		15
C04	4				12			1		1				3			6	4		31
C05										1	1		3	1		1	10	14		31
C06							3		1	1	1	30	1				3	2		42
C07	12	1	3	4	9	1		1	1	8	3	2	1	3	1		29	45		124
C08	6			3	2		2			2	2			6	1		11	9		44
C09						1								2			13	4	18	38
C10	42		7				5	1	16		2		6	4	5	1	37	14		140
C11	4		3		2	6	1	1		3		7	17	7		2	27	12		92
Total	176	9	15	31	31	42	124	44	38	140	92	41	33	30	62	4	229	124	18	1,283
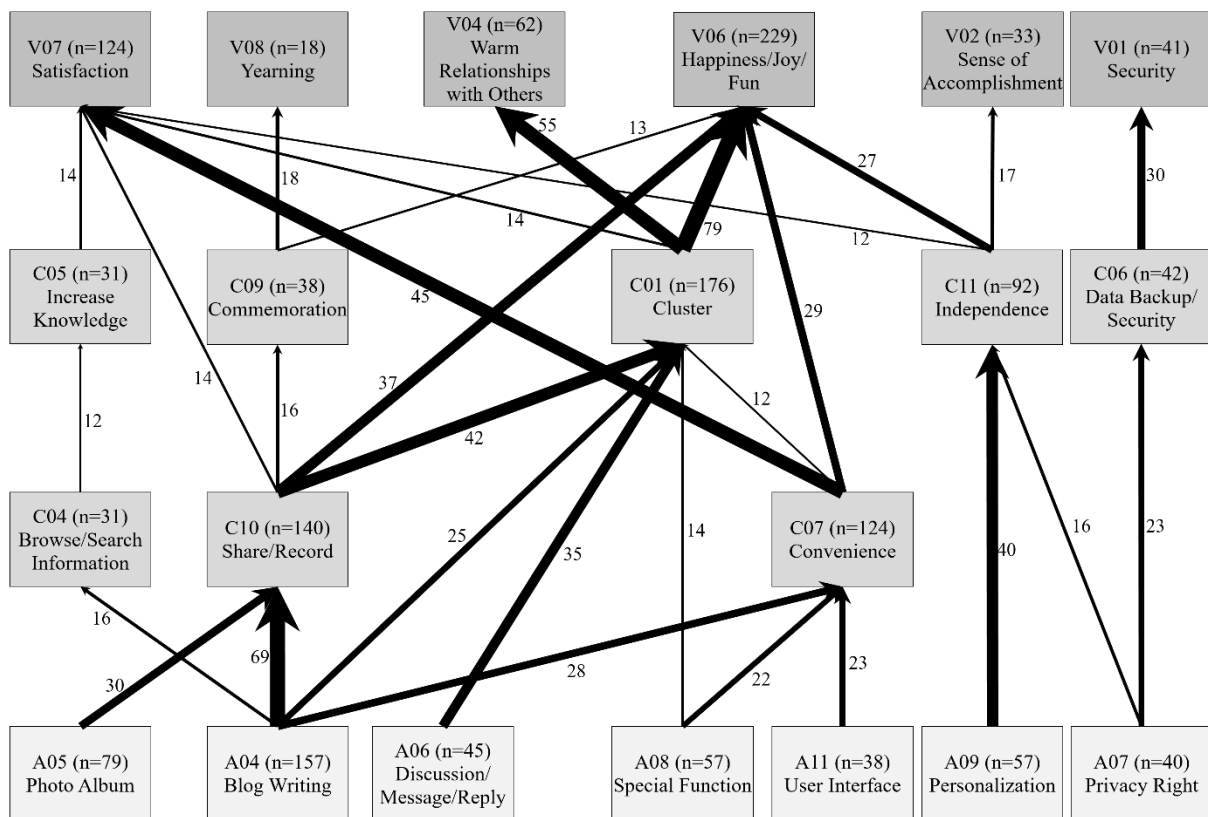
Figure 1. HVM of blog users (Cut-off level = 12)

RESULTS AND DISCUSSIONS

Link of the "Attributes-Consequences"

Blog Writing➔ Share/Record & Convenience

Blog writing is a website that is managed by personals and posts new articles, images, or videos on irregular dates. This is the most important demand attribute that the respondent recognized when choosing a blog (has mentioned 157 times). **Blog writing** allows users to record what happens in their daily lives, just like a diary, and to express their personal emotions. Not only can share the author's happy things with friends, but also can vent your dissatisfaction, depression or anger in your life on the Blog. For users, **blog writing** not only records personal life, but also shares personal feelings with friends. In addition, for people with special expertise or interests, you can share your knowledge and skills by writing a blog and discuss with internet friends or friends. There are also several blog search engines used to search content of blog, such as Bloglines, BlogScope and Technorati. Provides information about popular searches and tags used to categorize content of blog, increasing the **convenience** for users to browse and search for information.

Personalization➔ Independence

Personalization means that the background themes style, layout presentation, music and other functions of the blog can be modified according to personal preferences, making the blog more attractive. Many users want to pursue personal characteristics and **independence**. They can change with the user's feeling and preference, and the personal blog will be unique by the **personalization** function.

Discussion/ Message/Reply➔ Cluster

The attribute function of **Discussion/Message/Reply** communicates or contacts with contacts through texts and emoji. This feature allows users to interact with the outside world more than just individuals. It is also not limited by time and space and sends messages anytime and anywhere; making Blog a communication channel between many enterprises and people, or a platform for contact between friends, and through this kind of communication can also increase the results of **cluster**.

Photo Album➔ Share/Record

The **photo album** refers to the blog user uploading the image files to the blog with the network, and the image files can be personal/group photos, travel photos, and so on. Users can not only record footprints of their own life, but also share photos with friends or a wide range of Internet users. In addition, users can save photos in the album of the blog and they can also be used for their future memories.

Special Function➔ Convenience & Cluster

Special function includes the syntax of the blog, the constellation calendar; the cluster of good friends related to the group activities, which came to my house, the link of good friends, co-authors; pin the posts related to the blog management, classification of the posts and other functions. Whether it is recording life or expressing feelings, it is possible to make the user feel more convenience while operating the blog through special functions, which not only makes it more **convenience**, but also triggers the topic of friends and further produces the result of **cluster**.

Link of the "Consequences-Consequences"

Share/Record➔ Cluster

The development of the Internet has changed the style of the traditional writing diary. People have recorded their own lives on their own blogs numerously, expressed their feelings, and

even shared personal creations. Blogs are not only channels for recording personal life and feelings, but they also break through geographical and spatial restrictions, so that friends from all over the world can know about the current situation from the posts or photos shared by users and increase the interaction between them. Even with the blog to expand the personal living sphere, and then create a ***cluster*** effect.

Browse/Search Information→Increase Knowledge
Many Internet users use blogs to search and browse information which they prefer to know, such as travel information, financial knowledge, and personal creations. Enrich personal knowledge by browsing the relevant experience provided by blog users. Therefore, the Blog has become one of the sources of information for users to obtain information.

Link of the "Consequences-Values"
Cluster→ Happiness/ Joy/Fun
Blog is one of the channels for network users to communicate with each other. Through blogs they can care for their friends and get in touch with each other in order to gain spiritual comfort to create a feeling of ***happiness/joy/fun***.

Cluster→ Warm Relationships with Others
A Blog is an extension of many people's real-life relationships. Users can use the blog to have a bridge of communication with friends. Friends can also use the blog to know the user's current situation and increase interaction with each other. Or use the blog to get to know new friends and expand their circles of society, and then start ***warm relationships with others***.

Convenience→ Satisfaction
The hosting of a blog provides a highly ***convenience*** and user-friendly design that allows users to easily and conveniently use or modify the information of posts on the blog. Or save time by entering the blog of others through a simple user interface, and these designs of high ***convenience satisfaction*** the users' psychologies of pursuing convenience, speed and simplicity.

CONCLUSIONS AND IMPLICATIONS
The Blog is a platform that emphasizes the absorption of information and the attitude of sharing life and symbolizes the values and beliefs of authors; meanwhile, it is a media in the center of authors. In this research, it used Laddering for interviews deeply from the perspective of user needs, used content analysis to simplify the interview content and compiled into an Implication matrix. Finally, HVM was drawn to present the "attributes-consequences-values" structure.

The results of the research showed that users can record and share their lives, creations and express emotions on the blog. Therefore, blog writing is one of the most important factors in their choice of blog. In addition, through the Internet you can break the spatial constraints, and then shorten the distance between friends, caring for each other through the blog, increasing the interaction between each other, also with the blog you can expand your personal living sphere, and then create a ***cluster*** effect. In addition, due to the development of the Internet, users can browse other people's blogs on the Internet. Through the functions of posts publish and response on the blog, you can express your opinions and concerns in the post, so that users can feel the care of friends through these words, and then get spiritual comfort to accrue a feeling of ***Happiness/Joy/Fun***. The research also found that respondents did not generate ***warm relationships with others*** from ***Share/Record***, but rather easier generated links with ***Enjoy life*** and ***Satisfaction***. In addition, respondents would not feel a ***sense of***

accomplishment by ***increase knowledge***, but instead generated a link with ***Satisfaction***.

In the design suggestions of the Blog platform, this research suggests that platform operators should design and provide users with a more user-friendly interface based on the concept of User-centered design, for example, the user can change the background style of his blog more independence, providing a creative space for personal features. In addition, when the hosting of blog provides new features, they can set up pop-up windows to inform them of new features after users log-in and set up a trial period to allow users to give comments into the feedback system from the trial experience for continuing improvements by the hosting of blogs to make the blog platform more in line with the needs of users thus increasing the competitiveness of the blog industry.

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