Value for Users in Social Media Services - a Framework Walkthrough

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Abstract— **This paper presents several key values for users in social media services. Based on Kujala and Väänänen-Vainio-Mattila's value framework, a walkthrough was conducted on ten social media services of different types. We also analyzed which elements are needed in the service to produce these values. The main findings are that social media services mainly produce social life, creativity, and emotional values. Key elements that the services required were contacts, media sharing, an opportunity to provide feedback, and profile or character creation. By enabling these features, value can be created for users. The perceived value still depends on how the user utilizes the particular service, and how the other users interact with him/her.**

Keywords - Value; value-in-use; social media services; walkthrough.

I. INTRODUCTION

The popularity of the social media services is startling. Currently, there are over 400 million Facebook users around the world [1]. There are over three million articles in English in Wikipedia, and millions more in other languages [2]. The social media services have raised the Internet up to a new level. Rather than merely gathering and using information, users are now also producing and sharing information. The audience is also now much broader. Instead of being limited to technology driven youth, the Internet is used almost by everybody. The average Internet gamer is no longer an Internet-savvy youngster, but a middle-aged parent instead [3].

Why are the social media services so successful and popular? What is the value that these leisure time services provide to millions of users who access their services several times per day? For example, Google is the main advertising service on the Internet, but Facebook is gaining on Google due its vast number of members [4]. Why do people spend several hours per day playing online games and adding information to Wikipedia without getting paid?

Based on these phenomena, two research questions were formulated. 1) What forms the value in the social media services? 2) How is that value provided to users in social media services?

Since the service creation and use are interlinked, the value-in-use is linked to the value's formation [5]. In this research, the elements that create value in social media services will be examined. These elements can be functions or properties of the system, but they can also be demands from the community, users, or the use itself.

The popularity of social media services, and the fact that they are mainly used voluntary during leisure time, suggests that the services provide a significant amount of value to the users. However, it is not entirely clear what these values are.

Because some value is provided to the user, there must also be some elements within the services that enable this value creation. These elements can be functions in the system, but they also can be demands from either the user or the community.

The related research is presented in section II. The research methods are described in detail in section III. Section IV contains the results of the research, and section V presents the discussion and conclusion.

II. RELATED RESEARCH

Cockton wrote that, "we should judge systems by what endures beyond the interaction" [6]. This means that it is important to find the reasons for the use, rather than only focusing on the use itself. Instead of measuring the quality of the system, the system's worth should be considered. In this paper, the system is a software centered service system, a system that focuses on supporting customer's activities and processes [5]. Here, the value does not only mean the economical return from the use, but other aspects as well (for example, social benefits and knowledge increase, or simply having a pleasant time).

Grönroos noted that service creation is partly customer-driven, partly competition-driven, and partly technology-driven [5]. Clearly, the technology is built on Internet service and computers. Web 2.0 and social media are not strictly described, but involve several central elements [7]. The service improves when there are more users [7]. For example, in Facebook, the information increases when users have more contacts – other users that are connected to the user. The web pages are no longer static sources of information. Instead, they are dynamic [7]. Information changes constantly, so there is a practical reason for visiting the pages more than once. The users should be treated as co-writers of the information [7]. They produce most of the content in the Web 2.0 services, while the service provider mainly supplies the tools to share the information. Most of the social media services are quite simple [7]. The service needs to be simple to use so that it will reach a wide audience and can be accessed on a daily basis. Usually, the

social media services give something valuable for free, something that used to be chargeable [7].

Value is created during the use of these services. For example, there is value for the customer when a shop assistant helps him or her. There is no value from the assistant's existence to the customer while he or she is not helping the customer. In addition, the value comes from a long time customer-provider relationship [5]. Rather than a single purchase, it is much more profitable to both parties if the customer pays the provider for a longer period of service, while knowing that he or she will get quality service anytime or anywhere it is needed.

There are several definitions for the word value. The Webster dictionary has included the following definitions for value: "1) a fair return or equivalent in goods, services, or money for something exchanged, 2) the monetary worth of something: market price, 3) relative worth, utility, or importance <a good value at the price> <the value of base stealing in baseball> <had nothing of value to say>, 7) something (as a principle or quality) intrinsically valuable or desirable <sought material values instead of human values — W. H. Jones>" [8]. Pietarinen defined value as a formula V(X,S,P), where X has a value V to S because of P [9]. Thus, the value is dependent upon the receiver. Others might find different, or even no value from functions that are extremely valuable to others. He also stated that values can be divided into two general categories, final values, and vicarious values that lead to these final values [9].

Maslow defined the hierarchy of human needs [10]. The physiological needs, such as air and nourishment, are at the base of this hierarchy. Above these are safety needs and social needs, such as security and friends. After that comes the esteem needs, such as reputation. Finally, self-actualization is needed. Later, Alderfer proposed the ERG theory (Existence, Relatedness, and Growth) to create a hierarchy of behavior influences [10]. The three categories in ERG theory are existence needs, relatedness needs, and growth needs. However, value can be considered more than just fulfilling the needs of users.

Boztepe divided user value into utility, social significance, emotional, and spiritual categories [12]. Utility is divided into convenience, quality and performance, and economy. It defines the effectiveness and efficiency similarly to the definitions in the ISO 9421-11 standard [13]. It takes the ergonomic sides, such as accessibility and physical comfort, into consideration. There is also the economic viewpoint for value, defined as use economy.

Social significance is divided into social prestige and identity [12]. These define the social relationships in the use, such as impression management, role fulfillment, and group belongingness. Humans tend to ascribe importance to the community to which they belong. They want to be a part of it, and hopefully an important part. Nevertheless, they still want to have their identity and uniqueness. A good example of meaning of the identity is that the customer's commitment to a certain brand is dependent on the identity values it provides [14].

The emotional category is divided into emotion and sentimentality [12]. These values define the fun, enjoyment,

and memories of the service or system. Along with this, there is also a spiritual value that is important for those who have strong faith. For example, some religious groups do not use certain machines for religious reasons.

There are several other definitions and categorizations of user value. Kujala and Väänänen-Vainio-Mattila developed a combined framework based on the ones mentioned above and several other publications [5]. This framework is based on seven value divisions that are shown in Table I, with keywords selected from the values description. The framework was chosen because it is rather novel, and it contains the information collected from several different authors over several decades. The framework was also light and straightforward, permitting a walkthrough of ten services.

TABLE I.   SIMPLIFIED VERSION OF THE KUJALA AND VÄÄNÄNEN-VAINIO-MATTILA'S VALUE FRAMEWORK. SEE [15] FOR THE FULL VERSION.

Value	Keywords
Social values	Relatedness, social and external esteems status, power, control and dominance, achievement, conformity, equality, helpfulness, honesty, loyalty. Respect, influence, power, social achievement, conformity.
Emotional, hedonic values	Aroused feeling or affective states, pleasure, fun, sensory, enjoyment. Positive feelings, pleasure and enjoyment, increase in emotional experiences, support in handling experiences and emotions and saving emotional occasions.
Stimulation and epistemic values	Excitement, experienced curiosity, novelty and gained knowledge. Increase in excitement.
Growth and self-actualization values	Self-actualization, creating, independent thought, and action. Creating new things, achieving internal esteem.
Traditional values	Respect, commitment, and acceptance of customs and ideas (projected to culture or religion). Task support, maintaining customs and ideas.
Safety values	Security, social order, healthy, comfort, freedom from fear. Protection and alarms, ease of use, familiarity.
Universal values	Understanding, appreciation, tolerance, and protection for all, welfare, nature. Ecological soundness, improving equality.

The seven value categories are: social values, emotional/hedonic values, stimulation and epistemic values, growth and self-actualization values, traditional values, safety values, and universal values. Social values describe the social side of the user's life. These include having friends and other contacts, being appreciated and respected by the community, having some influence and power over others, and having some honesty and loyalty around. For example, when a person comes to a new work environment he or she needs to get related to the working community.

Emotional and hedonic values are the user's feelings. These feelings include fun, enjoyment, and other pleasurable emotions. The positive feelings, and effectively handling their related experiences, are also major part of the emotional needs. For example, watching comedy is fun, although it might not be so productive.

Stimulation and epistemic values make the user aroused and excited. Finding something new and increasing knowledge are the key points in stimulation values. For

example, many people are interested in traveling to other countries and seeing unfamiliar cultures.

Growth and self-actualization values describe the output of the user's inner self. Mainly, this refers to creativity, but it also means having individual thoughts and actions. For example, a child wants to put the clothes on by himself/herself, because he/she wants to show that he/she can do it without help.

Traditional values are related to the cultural habits of a group. People in a community might keep something quite valuable for historical reasons, although people outside of the community might not see it in the same way. For example, people might still support the home team, although they continue to lose.

Safety values describe the needs for security and comfort. These include mental security (for example, freedom from fear), and physical security (for example, being healthy). For example, people pay a significant amount of money to feel safe from burglars, fires, car accidents, and diseases.

Universal values describe the common good, and include: public tolerance, welfare, protecting nature, understanding others, and having equality. For example, people donate food to the poor because they believe it is the right thing to do.

The value created for users can be from one or several of these categories. Furthermore, the impact might vary. Others find some categories to be more important than others.

III. RESEARCH METHODS

The research method involved employing a value framework and analyzing several social media services reflected by this framework. Below are the descriptions of the chosen services and the framework used in the walkthrough.

A. Services

According to Cavazza's Social Media Landscape, the chosen services are in the following groups: social platforms, content sharing, discussion expressing, publication expressing, business to business networking, casual gaming and multiplayer online gaming [16]. The chosen services were: YouTube, Wikipedia, Facebook, LinkedIn, Combat Arms EU, Kongregate, Picasa, Habbo, Last-fm, and several different phpBB-forums. The services are introduced in Table II. There were five different phpBB-forums used in the research, varying from 400 to 96000 members under the topics of sports, games, and politics.

TABLE II. LIST OF SERVICES AND THEIR DESCRIPTIONS. THE DESCRIPTION IS RETRIEVED FROM THE SERVICE PROVIDER'S WEB PAGES (8.4.2010) AND THE CATEGORY IS BASED ON THE CAVAZZA'S SOCIAL MEDIA LANDSCAPE [16]

Service	Description	Category	URL
Combat Arms EU	"Free to play intense multiplayer action."	MOG gaming	http://combatarms.nexoneu.com/Intro.aspx
Facebook	"Facebook helps you connect and share with the people in your life"	Social platform	http://www.facebook.com/
Habbo	"Make friends, join the fun, get noticed." (Note, the Finnish version of service was reviewed)	3D discussion expressing	http://www.habbo.com/
Kongregate	"Thousands of the best free games, and our community features mean that playing them here is more satisfying than anywhere else. If you do well in our games you'll earn badges, level up, and gain the respect of your friends."	Casual games gaming	http://www.kongregate.com/
Last-Fm	"Last.fm recommends music, videos and concerts based on what you listen to."	Music content sharing	http://www.last.fm/
LinkedIn	"Over 60 million professionals use LinkedIn to exchange information, ideas and opportunities."	BtoB networking	http://www.linkedin.com/
phpBB-forums	"The most widely used Open Source forum solution."	Forum discussion expressing	http://www.phpbb.com/
Picasa	"Picasa is free photo editing software from Google that makes your pictures look great. Sharing your best photos with friends and family is as easy as pressing a button! "	Photo content sharing	http://picasa.google.com/
Wikipedia	"The free encyclopedia that anyone can edit."	Wiki publication expressing	http://en.wikipedia.org/wiki/Main_Page
Youtube	"YouTube is the world's most popular online video community, allowing millions of people to discover, watch and share originally-created videos."	Video content sharing	http://www.youtube.com/t/about

B. Walkthrough

The research process contained two steps. In the first step, the researcher created an account and added some content to the service. The purpose was to actually see the value that the service provides. It takes some time to get used to a new service and find all of the elements that it provides. Moreover, the value does not actually exist until a certain amount of time has passed, or until enough contacts

are added. For example, it is not possible to receive information about what is occurring before something actually happens. Further, chatting with another user is impossible before the other user logs on to the service. During this step, several observations about the value were made, but the findings were uncategorized. At this point, findings from other services were noted, but they were not emphasized as significantly as the ones from the reviewed services.

Once a basic understanding of the system was achieved, it was time to proceed to the next step. At that time, the services were formally reviewed with Kujala and Väänänen-Vainio-Mattila's value framework, which was described in the previous chapter. For each service, the value was reflected through each division of the value framework. The main focus was to find properties from the service to support the division's value creation. There were additional findings that reflected the researcher's use of the service. For example, in some services, the emotional values were not directly linked to clear properties, but assumptions had to be made. It was also hard to describe what type of content each user was looking for; thus, the researcher's subjective perspectives are included. There was an attempt to keep these at a minimum, but in this kind of walkthrough, it is rather impossible to remain completely objective. For example, it is rather personal to find something funny.

Findings are partly based on the users' observed behavior and comments. For example, a comment like, "That was funny," leads to an assumption that at least one user found the content to be humorous or emotionally stimulating. Several services were targeted to some user groups (for example, children) that the researcher could not really relate to. This led to some assumptions about what is valuable for the users, although not necessarily valuable for the reviewer.

IV. RESULTS

After analyzing the services within the framework, the following results were achieved.

A. Values

Here are the phenomena listed by each value-category.

1) Social values

The main issues for social values involve having friends or contacts in the service, and getting respect or showing off one's own status. In several services, having an extensive number of friends or contacts has a functional effect. For example, in LinkedIn, the service is based on having connections. Further, in Facebook, the content shown on one's own homepage (or wall) is increased when there are more friends. In several games, having more allies makes it much easier to win. Nevertheless, in some contexts, having more friends can be seen as a status symbol of popularity.

In order to gain contacts or friends, the service must provide the networking property. Searching or browsing must be enabled. In many services, there are also suggestions based on the connections. There must be a function that adds users to one's own contacts, but there also has to be a function that blocks the invitations from

strangers. Users usually acquire their friends from the real world, (for example, childhood friends, classmates and co-workers), but they can also be gained through the service. For example, joining a team in a game, or a group in Facebook, connects the group members together. This means that the service should provide some sort of grouping property.

Gaining respect and status can be provided by the users, the system, or with money. To gain status from other users, the service should provide some sort of appreciation function. With this function, the other users can inform that they like the actions of a certain user to the entire community. For example, one can like the posts in Facebook, one can rank the videos with stars in YouTube (this changed into thumbs during the research project), or add them to favorites, and the users can increase respect for other users in Habbo. It is extremely important that the user can gain recognition from their fellow users, not just from the system.

Status can also be elevated by the system. Many services provide achievements or levels; games in particular have these properties. Gaining enough experience points, kills, money, or other parameters can permit a character to move up a level or allow access to some special features. In other services, these types of status symbols also exist. For example, in many discussion forums, the amount of posts changes the user's status.

Finally, status can be improved with money. Many of the services are free, but special features are gained with purchases. Money can be changed into service currency, like Habbo-coins in Habbo, or NX-credits in Combat Arms EU, but special properties can also be achieved with money. For example, the user can bring his/her profile to the front page of the service. The service currency can then be changed into virtual property, such as clothes, furniture, and weapons. The usual methods for payment are PayPal, Credit card, money transfers, and SMS. This raises certain security issues, since real money is involved.

2) Emotional values

In social media services, sharing emotions and having fun are the two top emotional value creators. Sharing emotions, feelings, and experiences is quite common in micro blogging. Users tend to tell their friends if they are happy, sad, or irritated, and they like to report what happened during the day, or what will happen in the near future. Pictures, and sometimes, even videos, are used for sharing emotions and experiences. After sharing information, friends usually give the user feedback. They relate to the feeling and share their own thoughts about their experiences. To provide this, the service must have some channel to exchange information, whether it is text or another form of media. The possibility to comment or provide other feedback is essential to the creation process.

Most social services are related to leisure time, and aside from sharing information, they are used for having fun. One's own experiences and comments on such services are usually humorous, as are some shared links and images. Games can be also considered fun to play, and many of the services have games included. For example, Picasa has a

"Where in the World" guessing game, Facebook has several games, and in HABBO, there is the option of role-playing, such as a doctor or a parent. To provide these activities, the services require a level of real-time interaction or turn based sequences. There must also be enough graphics for the users to boost their imagination.

3) Stimulation

There are three major elements in social media services to increase stimulation for the user. The greatest one is information gaining, followed by excitement and meeting new people. There are several areas of interesting information. Users are usually interested in their friends, hobbies, work, and other information related to their lives.

The essential question is who is providing all of the necessary information? In many social media services, users themselves create the information. For example, in Wikipedia, the articles are written and edited by the users. In YouTube, users upload the videos, but they do not necessarily create the content for the videos. This might lead to copyright violations. Some users are quite active in terms of providing information, while others are not. For example, in one of the phpBB-forums, there were over 1300 registered users, but only 27 thousand messages; thus, it is likely that the majority simply read the forum.

One important aspect is the amount of information. If there is too much information, it is hard to find the essential information [17]. Fortunately, in the Web 2.0 world, the information is tagged rather than structured in tree form [7]. Thus, the provider of information can set a series of keywords to help others locate the correct information. This also leads to false advertising, where users add popular keywords when they are not related to the information.

Since the social media services are usually quite personal, the privacy factor is notable. When a user provides information about himself/herself, family, and friends, it is necessary to filter the information to certain groups. In Facebook, only registered members can see profiles and those who are not friends can see only the public part of a user's profile. In several services, it is also possible to send private messages to certain user(s).

Excitement is usually gained through achievements, or more specifically, by trying to reach them. As noted before, the status can be measured by these factors, and reaching a new level in a game or discussion forum is usually challenging. There are several other achievements involved, such as finalizing one's profile in LinkedIn or gaining subscribers in YouTube.

Other stimulation effects include: meeting new people and finding some other interesting things, such as new bands of one's favorite music genre. Usually, these are achieved with suggestions, browsing, or mere chance. For example, users can gain new friends while entering a random room.

4) Growth and self-actualization

Creativity is well supported in social media services. The user's self image is also elevated by profiles and characters. There are several different ways to share media in the services. Some even allow users to edit media. The biggest creativity factor is creating, mixing, and sharing media. The use in itself might be considered creative behavior. For example, in YouTube, the users can create playlists from their favorite videos. Last but not least, the users are able to give opinions and other comments related to the media. For example, in YouTube, viewers can suggest that amateur musicians make certain cover songs, or in discussion forums, users can open a new thread for discussion without knowing a great deal about the topic.

Self-actualization can be achieved through the profile. Usually, users try to learn about their strengths, which are then presented in text and images. The question is how honest the information actually is. Particularly, in games and virtual worlds, the users are not trying to copy themselves. Rather, they create some imaginary combination or use a common alias. Although there may be profiles or character information, the users are evaluated by their actions and behavior. For example, in Combat Arms EU, the player with the best stats might not be so popular if he/she cheats.

5) Traditional values

The only traditional values creator in social media services is acceptance. Users tend to use services in their own way. For example, they post things that they find interesting. Without feedback, the user cannot receive acceptance from the community; thus, the service should produce a channel for other users to inform their level of acceptance to the user.

6) Safety values

There are only a few safety values creators in social media services. Since most of the actions are electronic and virtual, physical safety is not really supported. Safety is primarily gained through awareness and information about the family and friends. For example, knowing that user's child is doing okay on a trip creates a calm feeling.

There are several safety issues related to social media services, such as privacy, family filters, and moderation. Since there are often various users on the service and some of them are minors, it is essential to have some protection from other users. Although the users create the content, there should be a moderator in the service. This is particularly true on open discussion forums, where the conversation might end up quite personal and hostile. Since the users are usually more or less anonymous, they can easily use foul language and make threats or insults.

7) Universal values

For universal value creation, social media services offer electronic material and equality. It is often considered an environmental deed to use digital material, and digital material can be easily shared. As a consequence, information can be easily accessed around the world and it will be stored to several locations.

In social media services, all of the users are practically equal. Anyone can create an account despite age, gender, or race. Every user has essentially the same possibilities at the beginning, and the users are usually graded by their deeds, not their backgrounds. Unfortunately, in many services the money can give additional value to the service, so the underprivileged to affluent do not benefit from the services as much as the others do.

B. Types of services

For media sharing services (for example, YouTube and Picasa), the social network was clearly weaker, but the feedback had much more value than in social networking services (for example, LinkedIn or Facebook). In more graphical services such as Habbo or Combat Arms EU, the character's appearance was somewhat important. In Habbo, it was a clear status symbol to invest in clothing and equipment, whereas in Combat Arms EU, the weapons and gear have more functional properties.

C. User groups

The value is also dependent on the user group, as the formula V(X,S,P) suggests. For example, LinkedIn is geared toward professional use and there are not a significant number of emotional values. Nevertheless, it seems that LinkedIn has taken several steps toward Facebook-type service properties, such as micro blogging, and hence, toward broadening the user group.

Habbo targets young children, and for these users, value creation is somewhat different. The main finding was that children are less capable of protecting themselves. This creates a need to have a higher level of safety than in other services. Foul language and teasing of other users seemed to be a problem in services targeting younger individuals. Moreover, the amount of information that children share might cause problems, since they often do not realize what the meaning of giving personal information to strangers is.

Although the users range in terms of age and computer skills, the experienced users most likely gain more from the services. They are more likely able to adjust settings to suit their preferences, and find relevant supporting services for their needs. Further, they are more likely to recognize trolls, spammers, and other misusers on the service.

D. The framework

The framework was easy to use, and sufficiently versatile to observe phenomena within the services. Nevertheless, some divisions did not produce extensive findings. It might be that the services were too socially oriented, and thus, the weight was more on the social values. For this research study, it might have been wise to break the social values into subcategories, such as status and relatedness.

V. CONCLUSION AND DISCUSSION

In this paper, the value for user in social media services was analyzed. The research was based on Kujala and Väänänen-Vainio-Mattila's value framework. Ten services of different categories were analyzed.

To create value for user in a social media service, the service must have a significant number of users. The users are necessary, as they create content for the service. Media sharing should also be supported. With text, images, and video, the users can share their experiences and emotions. Subsequently, there must be the option for other users to provide feedback, so they can relate to these experiences and provide social connection for others. Finally, the service

should have a profile or character creation. This allows the user to share his or her basic information as much as he/she wishes. Each profile or character should be unique enough to boost the sense of individuality and personalization. These profiles also help to initiate contact with other users.

In the future, the same research study could be conducted with the help of actual users. In this study, several assumptions had to be made, and it would have been beneficial to have end users to verify those assumptions. It is quite likely that the results can be generalized to all social media services, but value creation is likely different with other types of web based services. Yet, it might be interesting to explore whether the non-social values are the same. Finally, it would be interesting to determine the level of value required for successful and prosperous social media services.

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