Understanding the motivation to use web portals
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Abstract
The purpose of this research was to study the motivation attributes of information products from the end-users’ perspective, and to measure the impact of these attributes on intention-to-use. In the context of Web portal use, the information product generally includes three types of services: personal services (e.g., email), information services (e.g., online news) and search services. The literature underscores the importance of motivational factors such as social escapism and privacy concerns on the intention to use. Drawing from this theoretical background, an initial set of motivation attributes has been identified, and an experimental study using 142 subjects as Web portal users has been conducted. As far as impact analyses are concerned, social escapism motivation, information motivation, interactive control motivation, and socialization were found to highly correlate to all of the three types of services and the combined use. Lessons learned from this study should also help IT professionals to design, develop and deploy more effective general web portals.

1. Introduction

Web portals are one of the commonly used information products nowadays. Web portal means “a web site or service that offers a broad array of resources and services, such as e-mail, forums, search engines, and on-line shopping malls” (Webopedia, 2005). A portal is a ‘supersite’ that provides a variety of services including web searches, news, free e-mail, chatting, shopping and links to other sites. Nowadays, web portals play a role as full size hubs of electronic commerce, mail, online communities, and customized news and have become the most visited sites on the web. A general web portal can be seen as a general-purpose, non-professional gateway that allows visitors link to other sites. A typical general web portal offers services such as email, links to search engines, blog, chat rooms, online messengers, news. A general portal is not targeted to a specific group of people with special interests, and aimed to provide their services to general Internet users. People often set up a web portal as the first page of their web browser. This results in the use of web portals for a considerable amount of time everyday.

People may use web portal for various reasons. Their motivations are also important determinants of the use. For general web usage, various types of motivations in web usage have been identified. Although it is clear that using web portals is an important activity for many people, little is known regarding the influence of these determinants on a general web portal use. Since many people spend a significant of their time on the use of web portals every day, it becomes important to investigate what motivates people to use web portals. In this study, the influence of motivations on intention-to-use was investigated. For this purpose, various discourses of information system motivations were considered. In the following sections, theoretical foundations of this research problem will be discussed (see Fig. 1).

2. Foundations for motivations to use information system in general

Motivation is defined as “the forces either within or external to a person that arouse enthusiasm and persistence to pursue a certain course of action” (Daft, 1997). To understand the motivation to use web portals, we may need to understand why people use information in general. For this purpose, various discourses of information system motivations were considered. Various theoretical perspectives address this question from rational, interactionist, entertainment, or postmodern perspectives. In the following sections, each perspective will be discussed.

Rationalists posit that information use is a rational choice in human behavior. The rationality of information use results in alternative actions and choices when applying the concept of the artificial to information use (Simon, 1969). This classical view of information use is challenged by Feldman and March (1981). They studied the symbolic use of information. Sometimes, they argue,
people gather information just to show their competence about their decision making, or to provide verification of their intelligence. This explains why people would like to gather more information than they actually need in order to make decisions.

The philosophical discourse of postmodernism provides different perspectives dealing with social power structures to explain information use. Poststructuralists have studied how people use languages to politically affect other people (De Certeau, 2002). De Certeau (2002) studied how ideology may affect information to disguise a real fact. This implies how information, which may be believed just as a fact, can be contaminated by ideology and may be used for different purposes to control the information users politically.

At other times, people use information for entertainment. They use mass media to purposely change or control their mood or excitative states (Bryant & Zillmann, 1994). Entertainment, as an “activity designed to give pleasure or relaxation to the audience” (Wikipedia, 2008), has been considered a significant motivation to actual use and intention-to-use. Continuance intention and hedonic enjoyment influence postadoptive use of Facebook (Magro, Ryan, & Prybutok, 2013). I-Ping, Yi-Hsuan, and Yu-Chi (2013) found that entertainment is significantly related with all of blog behaviors (basic journaling, advanced publishing, and interactive feedback) meaning that users are seeking out all three types of blogging in order to entertain themselves. Social motivations, goal orientation, and entertainment orientation all made impacts on blogging behavior and its perceived outcome (I-PING et al., 2013). Entertainment was identified as the strongest predictor of perceived importance of Facebook (Zhang, Tang, & Leung, 2011). Bondad-Brown et al. (2012) found that entertainment is the primary motivation for TV viewing, whereas Online user-shared video use is motivated by more instrumental (informational) purposes, unlike traditional TV. Their study identifies motivations for, and their influence on, traditional TV viewing and online user-shared video use among a U.S. adult Internet users (Bondad-Brown, Rice, & Pearce, 2012). Lin, Wang, and Chou (2012) found that perceived enjoyment have a significant influence on behavioral intention to play physical tennis games.

We know that people use information for various reasons. Similarly, media users choose and use media to meet their needs. The Uses and gratifications (Blumler & Katz, 1974) approach is one of several significant trends in media research. This approach concerns itself with why people use and choose specific media. The assumption is that people’s need may affect how they use and respond to a medium. The approach focuses on the media user’s role in choosing and using media, so they are actively involved in communication processes and in choosing media sources.

Sometimes, media use can be habitual, ritualistic and unselective (Barwise & Ehrenberg, 1988). The “Use and gratifications” approach is focused on the choice of media by individuals. However, media can be forced on some people rather than freely chosen. Poststructuralists’ discussions of socio-economic or political forces may complement the “Uses and gratifications” approach in this sense.

As PCs, digital devices, and the Internet allow individuals to communicate and share their own knowledge with others easily, people also become information providers as well as information users and this intrigues new cognitive and affective needs (Havick, 2000). For example, the blog is a trend nowadays to share information. In blogs, people upload pictures and stories that they created for themselves. “Blog” refers to online journals in which authors deliver highly personalized information. Readers may visit these websites and leave their own message or comment on the content. While they are doing this, they present their own ideas, pictures, audio or video files to others, and interact with others by sharing opinions. Internet functions meet various users’ needs such as finding a great depth of information about a specific topic, searching for information, and receiving frequent updates. Technology has provided access, quick delivery, capacity, and efficiency for information providers to meet consumers’ various needs (Flournoy & Stewart, 1997).

According to motivation theory, behavior is influenced by intrinsic as well as extrinsic motivation (Deci, 1972). Intrinsic motivation derives from within the person or from the activity itself (Ryan & Deci, 2000). Intrinsic motivation refers to the act of doing an activity for its own sake—the activity itself is interesting, engaging, or in some way satisfying. Extrinsic motivation emphasizes performing a behavior to achieve a specific goal (Deci & Ryan, 1987), and motivates the person to action because of some external reward such as improved job performance and advancement, and/or the attainment of various kinds of external rewards (Igbaria, 1993) like pay, material attainments from others, recognition or the approval or admiration of other people.

In the field of organizational behavior research, human motivation at work has been studied. Behavior can be both extrinsically and intrinsically motivated. Venkatesh, Speier, and Morris (2002) include both extrinsic and intrinsic motivations as predictors of behavioral user intention. Davis, Bagozzi, and Warshaw (1992) investigated the effects of intrinsic and extrinsic motivations on intention-to-use of computers. They regard enjoyment as a type of intrinsic motivation and perceived usefulness as a type of extrinsic motivation. They found that enjoyment had a significant effect on the intention-to-use, controlling perceived usefulness. Usefulness and enjoyment affected usage indirectly through their effects on intention. Technology Acceptance Model posits that perceived
usefulness and perceived ease-of-use affect the acceptance and use of IT (Davis, 1989). Usefulness is determined by the inherent attributes of the resource and its applicability within specific information-seeking contexts and work tasks (Wilson, 1981). Lee, Cheung, and Chen (2005) tested extrinsic (usefulness and ease of use) and intrinsic (perceived enjoyment) motivations to explain students' intention-to-use of Internet-based learning mediums. Their study found that perceived usefulness and perceived enjoyment significantly influenced the use of Internet-based learning mediums. However, the perceived ease of use did not impact the intention-to-use of Internet-based learning medium. Usability is also often measured as an extrinsic variable to explain system use. The motivation theories that have been developed are based on the information system usage in workplaces. Therefore, they have some limitations in their application for web portal use which is a voluntary information system.

3. Motivations to use web portals

The users of web portals are free to choose whatever they want. Those extrinsic or intrinsic motivations discussed above may not apply for web use. For example, extrinsic motivations such as improved job performance, advancement, rewards, pay, and material attainment may not be applicable to web portal use, because web portal use, in this study, is focused on individual use to meet individual's needs.

To understand the motivation of repeated web use, the “uses and gratifications” approach has been adopted (Joines et al., 2003). This approach is a paradigm from mass communication research to explain media use. Eichmey and McCord (1998) apply the uses and gratifications approach to the World Wide Web. They found gratifications with regard to web sites to be similar to gratifications with regard to other types of media. They also added web-specific dimensions such as personal involvement and whether or not there is any continuing relationship. Personal involvement is the degree to which users found the web site to be personal. A continuing relationship is said to exist when users decide to visit the web site again.

Stafford, Stafford and Schkade adopt the uses and gratifications approach to understand motivations for Internet use (2004). The uses and gratification approach is suitable for Internet study because of the Internet’s media-like characteristics (Stafford, Stafford, & Schkade, 2004).

Korgaonkar and Wolin (1999) have applied the use and gratifications concept to the study of web portals and investigated seven motivations and concerns related to web use: social escapism motivation; transaction-based security and privacy concerns; information motivation; interactive control motivation; socialization motivation; nontransactional privacy concerns; and economic motivation. They said that information motivation, interactive motivation, economic motivation was significantly correlated with the hours spent online per day. They also found transaction-based security and privacy concerns, information motivation, interactive motivation, social motivation, and economic motivation to be significantly correlated to shopping online. Although the influence of motivations on information system usage in work places have been studied in MIS field and various motivations have been identified in web usage, little is known about the influence of motivation on intention-to-use of web portal usage.

4. Research questions

This study explored the following research questions: To what extent does each motivation relate to the intention-to-use of a general web portal? In this study, as a determinant of web portal use, motivation was investigated.
persistence to use a web portal. Motivation to use web portals was measured by asking web portal users questions at an individual level. The following motivations and concerns are driven from Korgaonkar and Wolin (1999). To measure these concepts, Korgaonkar and Wolin’s scale (1999) was used (see Table 1). Each item response was categorized using a seven-point measure asking subjects to indicate the degree to which they agree or disagree.

6. Methodology

6.1. Subjects and procedure

Data were collected from undergraduate students at the University of Hawaii at Manoa who were taking a 300-level business class. The students enrolling in the course were primarily juniors. Undergraduate student groups are ideal for this study because members of this age group (18–34) are the heaviest users of the web (Markets take note: The elusive 18–34 year-old is habitually online, 2004).

Participation in this study was voluntary. Participants were rewarded with course extra credits for their time and efforts during participation.

Participants were given a printout of experiment instructions describing the three types of tasks they would complete. Participants read the instructions, performed all three types of tasks individually online, and answered the questions in the two-phase survey.

As mentioned earlier, Telang and Mukhopadhyay (2005) divided portal services into three categories: personal services, informational services, and search services. Thus, the three types of tasks assigned to every individual participant made use of the personal, informational, and search services provided by a web portal. EXCITE.COM was used for this purpose. EXCITE.COM emerged from being a major search engine, into a web portal. EXCITE.COM provides all standard portal applications. EXCITE.COM offers all three types of services of web portals. To ensure the same familiarity with the site, only the responses from the participants who have no experience with EXCITE.COM were used for data analysis.

For the tasks which involve the use of personal services offered by the web portal, participants were asked to do the following: (1) create a new account which they did not have before; (2) design a “My Link” page on the portal; and (3) design a “My Page” (for more detail instruction, see Appendix 2). For the tasks which involve the use of information services offered by the web portal, participants were asked to complete the following tasks without typing anything in the search box: (1) find a birthday gift for someone he/she really cares; (2) recommend a movie for this weekend for a couple in their 60s; and (3) find some piece of interesting or odd news that he/she would share with a close friend. For the tasks which involved the use of search services offered by the web

Table 1

<table>
<thead>
<tr>
<th>Motivations and concerns</th>
<th>Scale</th>
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</thead>
<tbody>
<tr>
<td>Social Escapism motivation</td>
<td>(1) “So I can escape from reality”</td>
</tr>
<tr>
<td></td>
<td>(2) “Because it stirs me up”</td>
</tr>
<tr>
<td></td>
<td>(3) “Because it arouses my emotions and feelings”</td>
</tr>
<tr>
<td></td>
<td>(4) “Because it make me feel less lonely”</td>
</tr>
<tr>
<td></td>
<td>(5) “So I can get away from what I am doing”</td>
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<tr>
<td></td>
<td>(6) “So I can forget about work”</td>
</tr>
<tr>
<td></td>
<td>(7) “Because it shows me how to get along with others”</td>
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<tr>
<td></td>
<td>(8) “Because it helps me unwind”</td>
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<tr>
<td></td>
<td>(9) “So I won’t be alone”</td>
</tr>
<tr>
<td></td>
<td>(10) “I do not like to use the web alone”</td>
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<tr>
<td></td>
<td>(11) “Because it takes me into another world”</td>
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<tr>
<td>Information motivation</td>
<td>(1) “Because it gives quick and easy access to large volumes of information”</td>
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<tr>
<td></td>
<td>(2) “Overall, I learn a lot from using the web”</td>
</tr>
<tr>
<td></td>
<td>(3) “So I can learn about things happening in the world”</td>
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<tr>
<td></td>
<td>(4) “Overall, information obtained from the web is useful”</td>
</tr>
<tr>
<td></td>
<td>(5) “Because it makes acquiring information inexpensive”</td>
</tr>
<tr>
<td>Interactive control motivation</td>
<td>(1) “Because I decide if I want to continue scrolling through the sites or not”</td>
</tr>
<tr>
<td></td>
<td>(2) “Because it gives me the control over what and when I want to use it”</td>
</tr>
<tr>
<td></td>
<td>(3) “Because it is interactive”</td>
</tr>
<tr>
<td></td>
<td>(4) “Because I enjoy it”</td>
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<tr>
<td></td>
<td>(5) “Because it is thrilling”</td>
</tr>
<tr>
<td></td>
<td>(6) “Because I find it exciting”</td>
</tr>
<tr>
<td>Socialization motivation</td>
<td>(1) “When I visit my friends we often use the Web with my friends”</td>
</tr>
<tr>
<td></td>
<td>(2) “Often, I talk to my friends about sites on the web”</td>
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<tr>
<td></td>
<td>(3) “I enjoy telling people about the Web sites I like”</td>
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<tr>
<td></td>
<td>(4) “Because it is a part of my usual routine”</td>
</tr>
<tr>
<td>Economic motivation</td>
<td>(1) “I enjoy the convenience of shopping on the web”</td>
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<td></td>
<td>(2) “When I want to buy a big-ticket item, I use the web to search for bargain prices”</td>
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<td></td>
<td>(3) “To research a company, industry, or stock”</td>
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<tr>
<td></td>
<td>(4) “Because it saves money”</td>
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<tr>
<td>Transaction-based security and privacy concerns</td>
<td>(1) “I am worried about the security of financial transactions on the web”</td>
</tr>
<tr>
<td></td>
<td>(2) “I am worried about the security of personal information on the web”</td>
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<tr>
<td></td>
<td>(3) “I am concerned over the security of personal information on the web”</td>
</tr>
<tr>
<td></td>
<td>(4) “I am concerned over the security of personal information on the web”</td>
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<tr>
<td></td>
<td>(5) “When I send a message over the web, I feel concerned that it may be read by some other person or company without my knowledge”</td>
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<tr>
<td></td>
<td>(6) “I am uncomfortable conducting personal banking transactions via the web”</td>
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<tr>
<td></td>
<td>(7) “To me, the use of the Web will be more appealing if proper safeguards were in place”</td>
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<tr>
<td>Non-transactional privacy concerns</td>
<td>(1) “I detest the fact that the web is becoming a haven for electronic junk mail”</td>
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<tr>
<td></td>
<td>(2) “I wish I had more control over unwanted messages sent by businesses on the Web”</td>
</tr>
<tr>
<td></td>
<td>(3) “I dislike the fact that marketers are able to find out personal information of online shoppers”</td>
</tr>
</tbody>
</table>

Adapted from Korgaonkar and Wolin (1999).
portal, participants were asked to answer the three questions using a search box. In their tasks, they were required to use the search box and may use the tabs located on top of the search box to narrow down their searches to specific categories. However, they were not allowed to click any other links or tabs in the main page of the web portal. The questions they answered are: (1) What is the definition of “AKIMBO”?; (2) Who won the gold medal in the 400 m freestyle swimming in the 12th FINA World Championships”; and (3) What is the best deal for an iPod?

After completing these tasks, the subjects evaluated the quality of the web portal, motivations to use, and intention-to-use. To measure motivations and the intention-to-use, a self-administered survey was done right after performing the tasks. To measure motivations, Korgaonkar and Wolin’s scale (1999) was used. Each item response were categorized into a seven-point measure asking subjects to indicate the degree to which they agree or disagree (7: extremely agree, 1: extremely disagree).

Participants also were asked to self-predict their future use of the web portal. To measure the intention-to-use, the similar technique was used as it appears in the TAM’s study. The statement, “Assuming the web portal is available, I predict that I will use it on a regular basis in the future,” were followed by a seven-point scale (1: extremely unlikely, 7: extremely likely). The questionnaire is in Appendix. Subjects were asked the question again to evaluate the individual’s intention-to-use of each of the personal, informational, and search services provided by EXCITE.COM using this seven-point scale.

6.2. Data analysis and research findings

6.2.1. Reliability analysis

To ensure reliability on how well a set of items measures each motivation, the Cronbach alpha score was calculated. Cronbach’s alpha score is a function of the number of test items and the average inter-correlation among the items. The formula for the standardized Cronbach’s alpha is NR[(1 + (N – 1)R)], with N being the number of items and R equal to the average inter-item correlation among the items. This formula shows that if the number of items increases, the alpha value also increases. If the average inter-item correlation is low, the alpha value will also be low. Thus, as the average inter-item correlation increases, Cronbach’s alpha will also increase.

The data results show that Cronbach’s alpha for each motivation and concern is > .80. And all of the values are statistically significant (p < .05). Each of the Cronbach’s alpha data analyzed is summarized in Table 2.

6.2.2. Relationship between motivations and intention-to-use

Kendall’s Tau-b was used to calculate the correlation between motivation and intention-to-use. Tau-b can be used for both square and non-square tables. As 7-point ordinal data were collected for the measurement of motivation and intention-to-use, Tau-b was the most appropriate method to compute measures of association between motivation and intention-to-use. In this study, the main focus of the relationship between motivations and web portal use is not causality, but correlation. The ordinal coefficient gamma is a correlation coefficient for ordinal, interval, or ratio data. It is used as a symmetric measure which varies from +1 to –1. However, it is not considered in this study because it provides an inflated value compared to most other ordinary coefficients on the same data set. The formula for Gamma is (P – Q)/(P + Q). Here P represents the concordant pairs and Q represents the discordant pairs. Tau-b equals the difference between concordant and discordant pairs divided by a term representing the geometric mean between the number of pairs not tied on x (X0) and the number not tied on y (Y0):

$$\text{tau-b} = \frac{(P - Q)}{\sqrt{(P + Q)(P + Q + Y0)}}$$

<table>
<thead>
<tr>
<th>Table 2: Cronbach's alpha value of motivations and concerns.</th>
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<tbody>
<tr>
<td>Motivations and concerns</td>
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<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Social escapism motivation</td>
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<td>Socialization motivation</td>
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<tr>
<td>Economic motivation</td>
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<tr>
<td>Transactional-based security and privacy concern</td>
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<tr>
<td>Non-transactional privacy concern</td>
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</table>

Personal service intention-to-use was significantly correlated with social escapism motivation ($r = .306$), information motivation ($r = .242$), interactive motivation ($r = .331$), socialization motivation ($r = .245$), and transaction-based security and privacy concern ($r = .153$). Information service intention-to-use was significantly correlated with social escapism motivation ($r = .265$), information motivation ($r = .236$), interactive motivation ($r = .291$), socialization motivation ($r = .227$), and transaction-based security and privacy concern ($r = .133$). Search service intention-to-use was significantly correlated with social escapism motivation ($r = .329$), information motivation ($r = .217$), interactive motivation ($r = .272$), socialization motivation ($r = .278$), and economic motivation ($r = .161$). Overall service intention-to-use was significantly correlated with social escapism motivation ($r = .306$, $p < .000$), information motivation ($r = .213$, $p = .001$), interactive motivation ($r = .259$, $p = .000$), and socialization motivation ($r = .205$, $p = .000$). In the following section, regression analysis was conducted to identify the main determinant for intention-to-use of web portals (see Tables 3–6).

6.2.3. Regression analysis results

In this study, stepwise multiple regression was used to answer the question of what the best combination of motivations would be to predict intention-to-use. For stepwise multiple regression, the computer determines the order in which the independent variables become part of the equation. In a stepwise regression, independent variables are entered into the regression equation one at a time based upon statistical criteria. The computer repeats the procedure until no additional independent variables add anything statistically meaningful to the regression equation.

6.2.3.1. Regression analysis results between motivations and Personal service intention-to-use. A stepwise multiple regression was conducted to evaluate whether all of the motivations were necessary to predict personal service intention-to-use. Social escapism motivation, Information motivation, Interactive Control motivation, Socialization motivation, Economic motivation, Transactional-based security and privacy concern, and Non-transactional privacy concern were used in a stepwise multiple regression analysis to predict personal service intention-to-use of a general web portal. The prediction model contained two of the seven predictors.

At step 1 of the analysis interactive control motivation, and social escapism motivation entered into the regression equation and was significantly related to personal service intention-to-use, $F (2,138) = 17.862$, $p < .001$. The multiple correlation coefficient was .45, indicating approximately 20.6% of the variance of the personal service intention-to-use could be accounted for by interactive control motivation, and social escapism motivation. Information, socialization, economic, transaction-based security and privacy concerns, and non-transactional privacy concerns did not enter into the equation at step 2 of the analysis. Thus the...
The regression equation for predicting personal service intention-to-use was:

\[
\text{Predicted Personal Service intention-to-use} = 1.081 + 0.357 \times \text{interactive control motivation} + 0.263 \times \text{social escapism motivation}
\]

6.2.3.2. Regression analysis results between motivations and Information service intention-to-use. A stepwise multiple regression was conducted to evaluate whether all of the motivations were necessary to predict Information service intention-to-use. Social escapism motivation, Information motivation, Interactive Control motivation, Socialization motivation, Economic motivation, Transaction-based security and privacy concern, and Non-transactional privacy concern were used in a stepwise multiple regression analysis to predict Information service intention-to-use of a general web portal. The prediction model contained one of the seven predictors.

At step 1 of the analysis interactive control motivation entered into the regression equation and was significantly related to Information service intention-to-use:

\[
F(1,139) = 26.029, \quad p < .001
\]

The multiple correlation coefficient was .397, indicating approximately 15.8% of the variance of the Information service intention-to-use could be accounted for by interactive control motivation. Social escapism, Information, Socialization, Economic, Transaction-based security and privacy concerns, and Non-transactional privacy concerns did not enter into the equation at step 2 of the analysis. Thus the regression equation for predicting Information service intention-to-use was:

\[
\text{Predicted Information Service intention-to-use} = 1.593 + 0.449 \times \text{interactive control motivation}
\]

6.2.3.3. Regression analysis results between motivations and Search service intention-to-use. A stepwise multiple regression was conducted to evaluate whether all of the motivations were necessary to predict Search service intention-to-use. Social escapism motivation, Information motivation, Interactive Control motivation, Socialization motivation, Economic motivation, Transaction-based security and privacy concern, and Non-transactional privacy concern were used in a stepwise multiple regression analysis to predict Search service intention-to-use of a general web portal. The prediction model contained two of the seven predictors.

At step 1 of the analysis social escapism motivation and socialization motivation entered into the regression equation and were
significantly related to Search service intention-to-use, \( F(2,138) = 17.626, p < .001 \). The multiple correlation coefficient was .451, indicating approximately 20.3% of the variance of the Search service intention-to-use could be accounted for by social escapism, and socialization motivation. Information, Interactive control, Economic, Transaction-based security and privacy concerns, and Non-transactional privacy concerns did not enter into the equation at step 2 of the analysis. Thus the regression equation for predicting Search service intention-to-use was:

Predicted Search Service intention-to-use

\[
= .436 \times \text{Social escapism motivation} + .238 \\
\times \text{Socialization motivation} + 1.368
\]

6.2.3.4. Regression analysis results between motivations and Overall service intention-to-use. A stepwise multiple regression was conducted to evaluate whether all of the motivations were necessary to predict Overall service intention-to-use. Social escapism motivation, Information motivation, Interactive Control motivation, Socialization motivation, Economic motivation, Transactional-based security and privacy concern, and Non-transactional privacy concern were used in a stepwise multiple regression analysis to predict Overall service intention-to-use of a general web portal.

The prediction model contained two of the seven predictors. At step 1 of the analysis social escapism motivation and information motivation entered into the regression equation and was significantly related to Overall service intention-to-use, \( F(2,138) = 14.45, p < .001 \). The multiple correlation coefficient was .416, indicating approximately 17.3% of the variance of the Overall service intention-to-use could be accounted for by Social escapism motivation, and Information motivation. Interactive control, Socialization, Economic, Transaction-based security and privacy concerns, and Non-transactional privacy concerns did not enter into the equation at step 2 of the analysis. Thus the regression equation for predicting Overall service intention-to-use was:

Predicted Overall Service intention-to-use

\[
= .398 \times \text{Social escapism motivation} + .206 \\
\times \text{Information motivation} + 0.984
\]

7. Discussion

The purpose of this investigation was to find out what motivates college students to use web portals. This effort was successful to generate several new insights about the nature of motivations and their roles as determinants of intention-to-use. Korgaonkar and Wolin’s scale (1999) was adopted in this study to measure items of each motivation and concern of web portal intention-to-use. Reliability of measurement items of each motivation and concern was ensured. Cronbach’s alpha for each motivation and concern is >.80, and all of the values are statistically significant (\( p < .05 \)).

As theorized, motivations and intention-to-use were significantly correlated. Kendall’s Tau-b was used to calculate the correlation between motivation and intention-to-use. Personal service intention-to-use was significantly correlated with social escapism motivation (\( r = .306 \)), information motivation (\( r = .242 \)), interactive motivation (\( r = .311 \)), socialization motivation (\( r = .245 \)), and transaction-based security and privacy concern (\( r = .153 \)). Information service intention-to-use was significantly correlated with social escapism motivation (\( r = .265 \)), information motivation (\( r = .236 \)), interactive motivation (\( r = .291 \)), socialization motivation (\( r = .227 \)), and transaction-based security and privacy concern (\( r = .133 \)). Search service intention-to-use was significantly correlated with social escapism motivation (\( r = .329 \)), information motivation (\( r = .217 \)), interactive motivation (\( r = .272 \)), socialization motivation (\( r = .278 \)), and economic motivation (\( r = .161 \)). Overall service intention-to-use was significantly correlated with social escapism motivation (\( r = .306, p < .000 \)), information motivation (\( r = .213, p < .001 \)), interactive motivation (\( r = .259, p < .000 \)), and socialization motivation (\( r = .205, p < .000 \)).

Social escapism, information, interactive control, and socialization were all highly correlated to each of the categories of intention-to-use: personal, information, search, and overall. Transaction-based security and privacy concerns, economic concerns, and non-transactional privacy concerns were not significantly correlated to intention-to-use of overall service of web portals. In this study, the use of web portals didn’t include online transaction activity or any business web use. In the context of business web use, Korgaonkar and Wolin’s study (1999) found the three motivations and concerns mentioned above were significantly related.

A stepwise multiple regression was conducted to evaluate whether all of the motivations were necessary to predict intention-to-use. Stepwise multiple regression answers the question of what the best combination of motivations would be to predict intention-to-use.

Personal Service intention-to-use was primarily predicted by interactive control motivation, and to a lesser extent by social escapism motivation. Information Service intention-to-use was primarily predicted by interactive control motivation. Search Service intention-to-use was primarily predicted by Social escapism motivation, and to a lesser extent by socialization motivation. Overall Service intention-to-use was primarily predicted by Social escapism motivation, and to a lesser extent by information motivation.

Social escapism motivation was identified as a main determinant of intention-to-use among various motivations and concerns. The prominence of social escapism seems remarkable, but it makes sense conceptually: web portal itself is one of media which contain lots of entertainment aspects. The importance of social escapism was also found in web advertising study by Zhou (2002). In this study, users with high social escapism motivation showed favorable attitudes towards web advertising as they perceive web advertisings as entertaining. Users with high informative motivation have favorable attitude toward web advertising because of both the perceived informativeness and the perceived entertainment (Zhou, 2002).

Even though a general web portal is developed as a tool to aggregate data and information, a primary motivation for use is because it is a fun, enjoyable activity that one allows to escape from reality. This finding is consistent with the finding of Lee et al. (2005) study. They found enjoyment motivation significantly influenced the use of Internet-based learning media. Social escapism motivation characterizes the use of a web portal as “a pleasurable, fun, and enjoyable activity that allows one to escape from reality” (Korgaonkar & Wolin, 1999). In web usage, Korgaonkar and Wolin found “social escapism” is one of the factors of motivation to use web. They used the term “Social escapism” similarly to the notion of entertainment; however, when they use the term “social escapism,” it also includes relieving daily boredom and stress, overcoming loneliness, and providing a diversion from reality as well as arousing emotions and aesthetic enjoyment. These various attributes emerged and were integrated to define “social escapism” in their study.

Industry has been noticed the importance of entertainment in web portals and some portals started to specify their direction and to focus on entertainment to attract brands and traffic as much as possible (Donnelly, 2008; McEleny, 2009). This trend toward entertainment is accelerated by the use of mobile devices.
Entertainment-themed web sites are most popular with mobile Internet users in Brazil, Russia, India and China (BRIC) (Balasubramanyam, 2008). The iPad is mainly used as an entertainment device for the purpose of watching video, looking at photos, or playing games (Albanesius, 2012).

With respect to search service intention-to-use, the study findings indicate that social escapism motivation is the most significant predictor. It is of particular interest that the study findings are consistent with the finding of Segev & Ahituv’ study (2010) in which they analyzed search queries used in Google and Yahoo in different countries. They found that the United States, Australia, the Netherlands, and South Korea showed the dominance of entertainment-related search services uses and a low extent of political and economic searches, whereas Russia, Germany, Sweden, France, and Ireland showed a relatively high extent of political and economic searches. In countries such as Korea, the United States, and China the use of information for entertainment purposes is dominant, and people tend to search for more specific information, such as particular music performers, songs, TV programs, and so on (Segev & Ahituv, 2010).

People use information for various reasons; and as previously discussed, several theoretical perspectives address this question from rational, interactionist, entertainment, and postmodern perspectives. However, the four significant motivations determined in this study suggest that a general web portal can be considered a social software that embeds the functions of social computing. Social software is defined as web-based software programs which allow users to socially interact and share information with others, and social computing is about supporting social behaviors in or through computational systems (Wikipedia, 2008). The usage of social software has been increasing. The defining characteristics of social software is (1) to support for interactive communication between individuals or groups ranging from synchronous real-time chatting to asynchronous collaborative work spaces, (2) to support for social feedback which allows users to evaluate the contributions of others, leading to the creation of reputation, and (3) to support social networks to create and build new relationships among individuals and groups of people (Boyd, 2003). Alhabash, Park, Kononova, Chiang, and Wise (2012) utilized the Use and gratifications approach to explore the motivations and uses of Facebook among a large sample from Taiwan. The highest rated motivation to use Facebook was social connection (Alhabash et al., 2012). Lee et al. (2012) investigated motivations for playing games on social network sites as well as attitudinal and behavioral outcomes of those motivations among US college students. The six motivations were found for playing social network games: social interaction, self presentation, fantasy/role playing, passing time/escapism, entertainment, and challenge/competition. They posit that the more participants played social network games for fun and to escape from their everyday mundane existence, the more positive their attitudes toward playing social network games were and the greater their intentions to play social network games were (Lee et al., 2012).

8. Theoretical and practical contributions

This study makes several contributions to the literature. First, motivations are recognized as explanatory variables of intention-to-use of web portals. There has been little attempt to consider motivations in explaining intention-to-use of a general web portal. In theories based on TAM model, intention-to-use of mandatory, work-related information system has mostly been the focus. Therefore, the explanation of intention-to-use has been limited in some senses. Although various motivations have been identified in web usage, little is known about the influence of motivation on intention-to-use of web portals. To explain the intention-to-use of a general web portal which is a spontaneous information system, various motivations and concerns were considered in this study. In this paper, the examination of motivations for general web portal use uncovered attributes such as social escapism that has not been associated with a compulsory work system.

Second contribution of the study is in examining the relationship between motivations and intention-to-use of web portals. This study contributes to the literature by revealing the best combination of motivations that can predict intention-to-use of web portal. This study corroborates the theoretical foundation for integrating motivations with intention-to-use of web portals.

The prominence of social escapism motivation has important implications for designers, particularly in the human factors tradition, who have tended to ignore entertainment factors. Since consumers of different kind of web portal services differ in their motivations, e-business could segment online consumers along with their Internet services and design specific features to approach their different segments. For consumers for information services may need interactive controls over the presentation of the information they review. For consumers for personal services, not only various interactive controls over the presentation, but also vivid pictures and good music might attract their attention. For consumers for search services, portal not only need to be entertaining, but also should offer socializing function.

Another possible practical implication of the finding is that future development of web portal should further strengthen the entertainment features and include new and effective means for information functions. The motivations significantly related to intention-to-use will provide insight to web portal designers about what features they should consider in designing web portals.

9. Limitations and future research

The threat to external validity comes from the fact that a field experiment in this study employs a limited numbers of subjects, tasks, and web portal site. The student sample may not represent a large geographical population. Also, the tasks that each subject performed may not represent the actual usage of web portals. The features of three of the web portals chosen for the field experiment also may not represent the features of all web portals. Also, EXCITE.COM is just one example of a general web portal, so it does not represent all general web portals. Therefore, there is a generalization limitation in this study to other types of web portals and other users. “After only” types of experiments are susceptible to the danger that individuals may respond differently. Thus, differences in their responses may merely reflect individual variations, rather than trends in web portal usage. Another problem may be the influence of the task performed. A specific task may affect perceived quality and intention-to-use differently. In “after only” experiments, Babbie (2007) writes that by repeating the experiment several times, using different groups of people in future studies will strengthen the confidence in the general research conclusion (Babbie, 2007).

Another limitation arises from the inconsistency between behavior and intention. Even though intention-to-use is correlated to actual usage, intention does not perfectly influence actual usage because attitude or behavior can change due to various factors, such as social change, personal norm, moral obligation, perceived behavioral control, habitual behavior, influence of situation or context, etc.

Social software comprises various types of digital activities. Weblogs, Wiki, Social bookmarking, iPod, Google earth, online profile matching services, are examples of social software (Owen, Grant, Sayers, & Facer, 2006).
Usually, a general web portal aggregates information and resources which enable users to perform various social computing, such as email, instant messaging, writing blogs, etc. In turn, social computing is the frame most appropriate to describe the characteristics of a general web portal. The main motivations to use web portals seem to correspond to the characteristics associated with social computing. Further studies are necessary for a better understanding and to determine the implications of web portals as social computing tools.

The generality of the findings remains to be shown by future research. Future research will shed more light on the generality of these findings.

Future work is necessary to explore the functionality of web portals as platforms for social computing. The main motivations to use web portals seem to be related to the concept of social computing. The significantly related motivations for intention-to-use imply the functionality of web portals as a social computing tool. Further studies should thus examine web portals from the perspective of them being social computing tools.

10. Conclusions

The purpose of this study was to examine the characteristics of information products from the end-users' perspective and to measure their impact on intention to use. Using a popular and general web portal (Excite.com) as an information product, the objective was achieved in that the research identified four significant motivations (social escapism, information, social, and interactive control) which were found to be significantly related to intention-to-use. Among various determinants, social escapism motivation most significantly influenced intention-to-use of web portals. These findings contribute to a better understanding of the intention-to-use of web portals. Future studies should have a specific focus: the characteristics of web portals that correlate it to being a social computing tool should be investigated.

Appendix A: Questionnaire

A.1. Demographic information

1. What is your gender? Male Female
2. How old are you? _____
3. What school year are you in? Freshman Sophomore Junior Senior Post graduate
4. Have you ever used web portal? yes no
5. If you have, how long have you been using web portal? _____ years.
6. Do you have experience with YAHOO.COM portal site? yes no
7. Do you have experience with LYCOS.COM portal site? yes no
8. Do you have experience with G0.COM portal site? yes no
9. Do you have experience with NETSCAPE.COM portal site? yes no
10. Do you have experience with MSN.COM portal site? yes no
11. Do you have experience with AOL.COM portal site? yes no
12. Do you have experience with EXCITE.COM portal site? yes no

A.2. Intention to use of the web portal

A.2.1. Personal service use

Personal services are "customized features that require registration via entry of a username and password to access these services. They also let users customize their interactions with the site. Portals may offer various personalized services such as emails, chat rooms, bulletin boards, messaging services, and personalized home pages, etc" (Telang & Mukhopadhyay, 2005).

Assuming the web site is always available, how likely are you to use personal services offered by EXCITE.COM on a regular basis in the future?

1. extremely unlikely
2. strongly unlikely
3. slightly likely
4. neither
5. slightly likely
6. strongly likely
7. extremely likely

A.2.2. Information service use

"Information services are the features that allow users to access directly from the portal by clicking them, without entering anything. News, entertainment, and sports are some of the examples of information services" (Telang & Mukhopadhyay, 2005).

Assuming the web site is always available, how likely are you to use information services offered by EXCITE.COM on a regular basis in the future?

1. extremely unlikely
2. strongly unlikely
3. slightly likely
4. neither
5. slightly likely
6. strongly likely
7. extremely likely

A.2.3. Search service use

"Search services are the features that enable users to search the Web through entering the search term(s) and clicking the search button. The search feature (which involves a textbox and a search button) is easily visible on the main page of web portals and sometime it appears with several tabs next to textbook to narrow down search results to specific search categories" (Telang & Mukhopadhyay, 2005).

Assuming the web site is always available, how likely are you to use search services offered by EXCITE.COM on a regular basis in the future?

1. extremely unlikely
2. strongly unlikely
3. slightly likely
4. neither
5. slightly likely
6. strongly likely
7. extremely likely
**A.2.4. Overall use**

Assuming the website is always available, how likely are you to use EXCITE.COM on a regular basis in the future?

1. extremely unlikely
2. strongly unlikely
3. slightly likely
4. neither
5. slightly likely
6. strongly likely
7. extremely likely

**A.3. Motivations to use EXCITE.COM**

What motivate you to use EXCITE.COM? Please consider each of the following items and rate each.

<table>
<thead>
<tr>
<th>Why do I use web portals?</th>
<th>Rate each attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) extremely disagree</td>
</tr>
<tr>
<td></td>
<td>(2) strongly disagree</td>
</tr>
<tr>
<td></td>
<td>(3) slightly disagree</td>
</tr>
<tr>
<td></td>
<td>(4) neither</td>
</tr>
<tr>
<td></td>
<td>(5) slightly agree</td>
</tr>
<tr>
<td></td>
<td>(6) strongly agree</td>
</tr>
</tbody>
</table>

1. "So I can escape from reality"*
2. "Because it takes me away from work"*
3. "Because it arouses my emotions and feelings"*
4. "Because it makes me feel less lonely"*
5. "So I can get away from what I am doing"*
6. "So I can forget about work"*
7. "Because it shows me how to get along with others"*
8. "Because it helps me unwind"*
9. "So I won't be alone"*
10. "I do not like to use the web alone"*
11. "Because it takes me into another world"*
12. "Because it gives quick and easy access to large volumes of information"*
13. "Overall, I learn a lot from using the web"*
14. "So I can learn about things happening in the world"*
15. "Overall, information obtained from the web is useful"*
16. "Because it makes acquiring information inexpensive"*
17. "Because I decide if I want to continue scrolling through the sites or not"*
18. "Because it gives me the control over what and when I want to use it"*
19. "Because it is interactive"*

<table>
<thead>
<tr>
<th>Item</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. &quot;Because I enjoy it&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>21. &quot;Because it is thrilling&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>22. &quot;Because I find it exciting&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>23. &quot;When I visit my friends we often use the Web with my friends&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>24. &quot;Often, I talk to my friends about sites on the Web&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>25. &quot;I enjoy telling people about the Web sites I like&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>26. &quot;Because it is a part of my usual routine&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>27. &quot;I enjoy the convenience of shopping on the Web&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>28. &quot;When I want to buy a big-ticket item, I use the web to search for bargain prices&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>29. &quot;To research a company, industry, or stock&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>30. &quot;Because it saves money&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>31. &quot;I am worried about the security of financial transactions on the web&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>32. &quot;I am concerned that my personal financial information may be shared with businesses without my consent&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>33. &quot;I am uncomfortable giving my credit card number on the web&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>34. &quot;I am concerned over the security of personal information on the web&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>35. &quot;When I send a message over the web, I feel concerned that it may be read by some other person or company without my knowledge&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>36. &quot;I am uncomfortable conducting personal banking transactions via the web&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>37. &quot;In me, the use of the Web will be more appealing if proper safeguards were in place&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>38. &quot;I doubt the fact that the web is becoming a ‘haven for electronic junk mail’&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>39. &quot;I wish I had more control over unwanted messages sent by businesses on the Web&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>40. &quot;I dislike the fact that marketers are able to find out personal information of on-line shoppers&quot;*</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

*Adopted from Kogaonkar and Woln (1999) Motivations scales

**References**


