

Conceptual Model, Potential Predictors and Dimensions of Affinity for the Use of the Internet

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SUMMARY

Numerous Internet related activities are rewarding and beneficial for private and professional life. Motivation for the use of the Internet is an important research topic in relation to populations and special groups who show a low level of Internet use despite the availability of a telecommunication infrastructure and satisfactory financial potential for the use of this medium. This paper presents a conceptual model of affinity for the use of the Internet, and also the results of empirical research of the potential predictors and factors of motivation for the use of the Internet. A survey was performed on 435 college students and the data were analyzed by regression analyses and factor analysis. The revealed potential predictors of frequency of Internet use and of the desire to use the Internet are discussed, as well as the dimensions of motivation for the use of the Internet that were uncovered by factor analysis.

Key words: Internet, motivation, affinity for the Internet, mass media, survey, regression analysis, factor analysis

Introduction

Numerous studies have investigated either what *activities* people engage in when they use the Internet, or what *categories of motives* for Internet use can be identified. For instance, in one of the earliest such studies Kraut *et al.* (1998) found that common Internet related activities included communicating locally or

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afar, enjoying oneself, reading the news, doing schoolwork, obtaining educational information, working as part of one's job, receiving hobby or product information, etc. A later report by Nie and Erbring (2000) indicated that most activities on the Internet are related to information gathering, e-mail, entertainment, profession/work, purchasing, and chat-rooms. These authors also reported that more Internet use means less time spent on traditional mass media. The more recent study of the digital divide in the United States (U.S. Department of Commerce, 2002, pp. 30-34) presents an overview of online activities and an analysis of such activities with respect to gender, age, race and income. A similar study was conducted by Howard *et al.* (2002) that resulted in an analysis of predictors of various online activities. Finally, detailed lists of Internet related activities were reported by Pew/Internet (2005a, 2005b).

A number of well known theories can be used to interpret the motives for diverse Internet-related activities, for instance the social presence theory (Short *et al.*, 1976), the uses and gratification theories (Blumer and Katz, 1974; Rosengren *et al.*, 1985) and the media richness theory (Daft and Lengel, 1986). However, in this paper the focus of interest is placed more on the *empirical and exploratory investigation* of potential motives for the use of the Internet/Web as a mass medium and on the development of a *conceptual model* that outlines various elements that may relate to the general motivation for the use of the Internet/Web, as well as for the motivation for specific online activities and the use of products/services that are accessible over the Internet. It must be noted that several other authors have previously used such an empirically driven approach.

Papacharissi and Rubin (2000) used factor analysis to identify the following *primary motives* for the use of the Internet: information seeking for an instrumental purpose, entertainment, convenience, pass time, and interpersonal utility – used as a channel for interpersonal interaction. They concluded that the Internet is used as a *functional alternative* by those users for whom other communication channels are *not available or rewarding*. Another study by Flanagin and Metzger (2001) revealed that at least one mode of communicating by the Internet received a high average rating in comparison with face-to-face (FtF) and other traditional means of mediated interpersonal and mass communication for all of the following *communication needs*: information retrieval, learning, play, leisure, persuasion, social bonding, relationship maintenance, problem solving, status, and personal insight. Their comment was that the Internet is a multidimensional technology *used to fulfil well-understood needs in novel ways*.

In a study by Wei and Leung (2001), a factor analysis of 21 measures of gratifications sought from the Internet revealed four factors that represented essential motives for mass media use: fun seeking, socializing, diversion [*escape*], and surveillance [*information gathering*]. Their main results indicated that on average there is a statistically significant decrease in time used on traditional media with more motivation to seek such forms of gratification from the Internet. For instance, a decrease in the broadcast news audience that was associated with Internet use was also found in a survey by the Pew Research Center for the People and the Press (2000). The *uses and gratifications* approach is perhaps the most commonly used theoretical background for interpreting the motivational aspects of online be-

havior (Ko *et al.*, 2005), consumer Web use (Joines *et al.*, 2003), and also to investigate the potential of employing the motivational attributes of the users of this medium to increase its commercial potential (Stafford *et al.*, 2004).

An interesting interpretation by Havick (2000) states that the Internet represents a distinctive contribution to the communication environment that gives individuals more control of the dissemination, storage and production of information and which can operate as another dimension of communication within the new and traditional media mix. In fact, Web acceptance and usage may be dependant on the type of users (goal-directed / work-oriented or experiential / recreational) and of their extrinsic or intrinsic motivation (Sánchez-Franco and Roldán, 2005).

In an investigation by Valkenburg and Soeters (2001) of children's motives for using the Internet the following factors were revealed: boredom avoidance, entertainment, information, affinity with computers, online social interaction, and off-line social interaction. Their most frequent pleasant experiences were related to playing or downloading computer games, video (clips) and songs, and children's entertainment sites, while their negative experiences were mostly related to viruses or computer crashes, and exposure to violence or pornography. Despite the potential of the Internet to replace or complement traditional media, Tewksbury and Althaus (2000) have found that the patterns of use of this medium may be affected not only by *gratifications* typically associated with television and newspaper use, but also by *the beliefs about this medium* and by *computer anxiety*. The negative relations between *computer anxiety* and Internet use were confirmed by Rockwell and Singleton (2002). Also, various types of *Internet anxiety* have been found to negatively influence the uses of this medium (Chou, 2003).

An additional set of factors that positively or negatively influence motivation for Internet/Web use are *engagement modes* (enjoying/acceptance, ambition/curiosity, avoidance/hesitation, frustration/anxiety, and efficiency/productivity) in the use of information technology (Sharafi *et al.*, 2004). Personality types of Internet users are another set of factors that influences Internet usage motives and online activities (Amiel and Sargent, 2004). Finally, a model of computer mediated communication (CMC) competence that was developed by Spitzberg (2006) outlines the elements that may positively and negatively affect the motivation for the use of the Internet from the interaction/social perspective: motivation, knowledge and skills of the individual, his/her sensitivity for the message, medium and context attributes, and also the previous outcomes of Internet-based interaction.

Rationale for research of affinity for the use of the Internet

A global Internet use research program that was performed in 30 countries (Cruikshank, 2001) revealed that the most common reasons for *not* using the Internet were "no need for the Internet" (40%), "no computer" (33%), "no interest" (25%), "don't know how to use it" (16%), "cost" (12%), or "no time" (10%). It must be noted that the use and non-use of the Internet is not influenced only by technical issues like access and skills, but also by social factors like gender, age, income, and race (Selwyn *et al.* (2005). Recent findings by the Pew Internet and American Life Project indicate that the percentage of people in the USA that are

disconnected from the Internet remains rather stable over a period of several years and that those with lower level of education, low income, as well as some ethnic groups and senior citizens are more likely to be non-users (Pew / Internet, 2004; Fox, 2005). In fact, another survey indicated that the subgroup of adults that never intend to get online is rather stable (Which? Online, 2001). These results are in contrast with the *potential benefits* of some of the most frequent online activities of a substantial percent of Internet users in the United States (U.S. Department of Commerce, 2002, p. 31): e-mail (84%), product/service information search (67%), news/weather/sports (62%), product/service purchase (39%), information search of health services or practices (35%), government services search (31%).

Overcoming the barriers of negative motivation or lack of skill for Internet use may be especially important for *senior citizens* (see Loges and Jung, 2001) who may use this communication channel to preserve social contact and support, access/purchase products or services, keep informed, and acquire health information. For instance, in the USA the same may also be true for some other categories of non-users: people in households with low income, adults with a low level of overall education, Hispanics, and Blacks (U.S. Department of Commerce, 2002, p. 31; Pew / Internet, 2004).

The situation worldwide differs greatly regarding the digital divide issue and the percentage of people with(out) Internet access in different countries. For example, within Europe, countries can be found that have from 3% to 10% of Internet users (Albania, Bosnia, Moldova) to those with more than 60% of Internet users (Denmark, Sweden, Netherlands, Finland, United Kingdom) in the general population (Internet World Stats, 2006). Research of affinity for the use of the Internet may provide additional guidance for promoting Internet use when a poor communication infrastructure, low income, inadequate education and language barriers are not the main obstacles for Internet adoption.

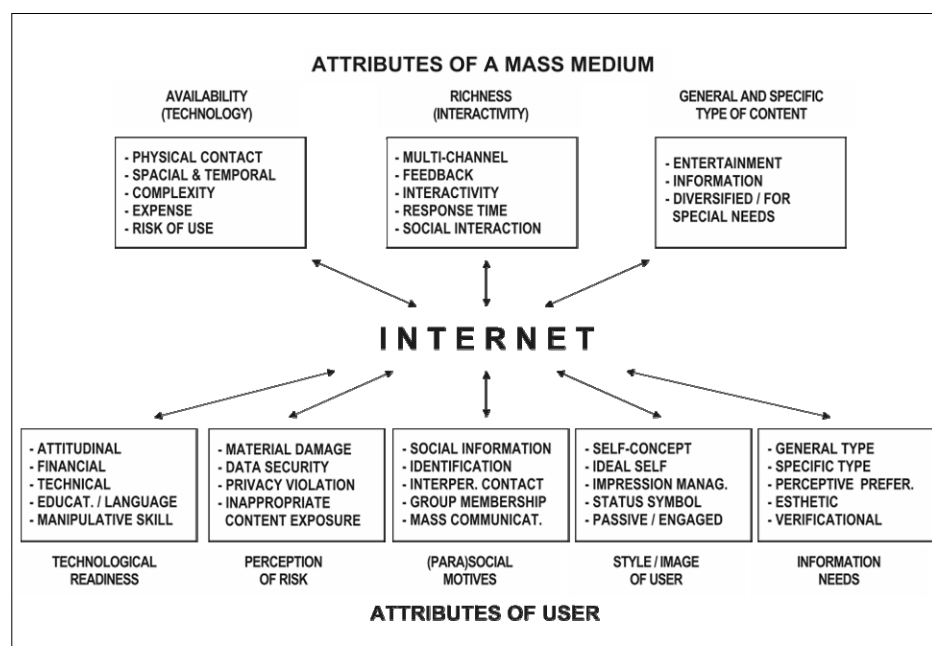
However, the knowledge of factors that positively or negatively influence the affinity for the use of the Internet could be applied in other areas that are not related to the digital divide issues, for instance in the area of *Web marketing* (Staford and Gonier, 2004; Joines *et al.*, 2003) and in relation to the *attributes of commercial and noncommercial Web sites* like their attractiveness (Coyle and Thorson, 2001), appeal (Blake *et al.*, 2004), potential content elements (Perry and Bodkin, 2000), effective user interaction design (McCullough Johnston, 2001), and building customer relationships online (Geissler, 2001). The factors of affinity for Internet use may also help interpret the preferences of online news readers (Tewksbury, 2003) and patterns of Web usage by specific populations (Mitra *et al.*, 2005). Finally, various means for reducing the *apprehensiveness of the World Wide Web* may have a positive impact on the time people spend online and electronic commerce (Susskind, 2004).

The conceptual model of affinity for the use of the Internet

To investigate the affinity for the Internet, a *conceptual model* was developed to categorize numerous elements that are potentially related to positive and negative motivation for Internet use into the following categories: *attributes of the me-*

dium (availability/technology, richness/interactivity, general and specific types of content) and *attributes of the user* (technological readiness, perception of risk, social and parasocial motives, style/image of user, information needs). These elements were selected on the basis of theoretical and empirical findings that were outlined in the introduction of this paper, and have some correspondence with the components of the theoretical and empirical work of, for instance, Ramirez *et al.* (2002), Bondafelli (2003), Eveland (2003), Lin (2003), Sherry (2004), Vorderer *et al.* (2004), and Spitzberg (2006). The categorization of the elements of the conceptual model is presented in *Figure 1*. According to this model the attributes of the Internet as a medium interact with the attributes of the user to create an inclination toward the use of the Internet or any other medium in a media environment where mass and interpersonal media are in a relationship of both rivalry and complementarity. This model was not developed for a permanent classification of the elements that are listed in *Figure 1* since its purpose was more practical – to assist in the construction of items for a survey of affinity for the Internet / mass media. The elements of this conceptual model are listed in the continuation of this paper.

Figure 1. Elements of the model of affinity for the Internet



Medium attributes

The category *availability/technology* of a medium is related to the possibility to get in contact with a medium, the potential to use a medium in a certain place and time, the complexity of a medium, the expense related to the use of a medium, and the risk that is associated with its use.

The category *richness/interactivity* is associated with the possible multi-channel characteristics (audio, video, text) of a medium, as well as with the potential for interactivity, receiver-sender feedback, response time, and social interaction via the medium.

The category *general and specific type of content* includes entertainment, various general types of information (news, sport, health, product, people, etc.), and diversified content for special needs (professional/work-related, purchase of product/service, chat-rooms, etc.).

User attributes

The category *technological readiness* incorporates the user's attitudes toward the medium, financial potential, technical skill, education and language skills needed to use a medium, and manipulative skill (for instance in browser use or in video games).

The category *perception of risk* when using a medium is related to the user's awareness of the potential for material damage when using a medium (i.e. from computer viruses), problem of personal data security, possible privacy violation, and the probability of exposure to unwanted inappropriate content (pornography, hate groups in chat forums, etc.).

The category *(para)social motives* includes the user's retrieval of social information (about real people and/or media personae), identification with media characters, interpersonal contact via the medium, the potential for group membership (in discussion groups or special interest groups), and mass communication (i.e. via personal home pages and/or participation in chat forums and similar forms of group communication). This category could also include off-line social interaction that is related to the use and/or content of a medium.

The category *style/image of user* is associated with the self-concept of the user and the ideal self (these may be related to the affinity for a specific medium), as well as with impression management through the use of a medium, and the possession/use of a medium as a status symbol, and also with an inclination to be either passive or engaged when using a medium (e.g. preference for "push" or "pull" media).

The category *information needs* is related to the preference for various types and forms of content that are available through the use of a medium, for instance general types of content (e.g. entertainment, news, professional/work, etc.), specific types of content (i.e. stock market, product/purchase, downloadable files, forums/discussion groups on specific topics, minority groups, etc.), perceptive preferences (for text, images, video, audio, multimedia, interactivity, etc.), esthetic aspects (elegant and appealing design in presentation of information), and verification aspects (for true, accurate and credible information).

The outlined model of affinity for the use of the Internet could be used to research the motives for Internet use, and to study the potential predictors of affinity for the Internet for specific subgroups within the general population.

Problem

The main goals of this paper are (1) to determine the potential *predictors* of affinity for the use the Internet for a subgroup of Croatian college students by regression analysis, and (2) to investigate the potential *factors/dimensions* of motivation for the use of the Internet by factor analysis.

It must be noted that the results of the analyses in this study in relation to the first goal apply only to the specific group of respondents and a specific set of items that were used in the survey.

Method

The elements of the model of affinity for the use of the Internet outlined in *Figure 1* were used for the design of the items of the survey. A total of 45 statements about medium use and the perceptions of a medium were formulated as potential predictors of affinity for a specific medium. In addition, two statements were formulated for the following *criteria* of affinity for a medium: (1) the frequency of medium use, and (2) the desire to use a medium. The rating was performed on a 1-5 scale (ranging from 1 – *very little / poor* to 5 – *very much / good*). The following mass media were rated in this survey in relation to the elements of the model of affinity for the Internet: television, Web/Internet, radio and the press. However, only the data that were collected on the evaluation of the Web/Internet are presented in this paper. Data analysis was performed by stepwise linear regression and also by factor analysis.

The survey was performed on a convenience sample of 435 college students from three different colleges in Croatia. The respondents had free access to the Internet at their college and at least one course that informed them how to use the Internet/Web. The respondents were 18-22 year olds, 54% male and 46% female, predominantly in their first year of college (85%). More than 95% of respondents had been using the Internet for at least 2 months and 70% of the respondents stated that they had been using the Internet for more than 1 year. Furthermore, 88% of the respondents used the Internet at least 1-2 times a week or more often and 82% of the respondents stated that they used the Internet for at least 2-3 hours per week or more.

Results

The results of the regression analysis in relation to the criterion frequency of Web/Internet use are presented in Table 1. It can be concluded that *the frequency of Web/Internet use* by the students in our sample was mostly influenced by the following predictors: *the physical availability (location) of the Internet connec-*

tion, the possession of needed knowledge/skill to use the Internet, the identification of the user with people/personae in the medium, the simplicity and ease of use of the Internet, the user's financial potential to use the medium, the attribute of the Internet that it enables specific need fulfillment, and the potential of the Internet to enable personal entertainment if used. However, two predictors were negatively valenced: the potential of the Internet to provide information about fictional or real characters/persons, and the possibility that the Internet as a medium preserves the user's right to privacy.

Table 1. Predictors of frequency of Web/Internet use (N=435)

Predictors of frequency of Web/Internet use (R=0.56)	β	Sig.
Physical availability of the medium (location)	,34	,00
Possession of needed knowledge / skill	,14	,00
Enables identification with different personae/people	,13	,00
Simplicity and ease of use	,15	,00
User's economic/financial ability to use the medium	,13	,00
Enables specific need fulfillment	,12	,00
Informing about fictional or real characters/persons	-,11	,00
Enables personal entertainment if used*	,09	,02
The use of the medium preserves user's right to privacy*	-,08	,02

R – multiple regression; β – beta coefficients; Sig. – statistical level of significance

* – predictor variable that was related to both criterion variables

The results of the regression analysis for the criterion *desire to use the Web/Internet* are presented in Table 2. It must be noted that for the criterion desire to use the Web/Internet a substantially different list of predictors was most influential: *the potential of the Internet to fulfill the need for information on different topics, the attribute of the medium that it is according to the user's perceptive preferences, the potential of the Internet to enable personal entertainment when used, the possibility for the user to use the medium while doing other jobs/activities, and the characteristic that there is a lot of visual material in the medium*. One predictor was negatively valenced: *the possibility that the Internet as a medium preserves the user's right to privacy*.

The majority of the positively valenced predictors for the criterion *frequency of Web/Internet use* were related to the *availability/technology* of the Web/Internet as a medium and *the technological readiness* of the users (compare Table 1 with the elements in Figure 1), while most of the predictors for the criterion *desire to use the Internet* were associated with *general and specific types of content* that are available over the Web/Internet and *the information needs* of the user (compare Table 2 with the elements in Figure 1). The negative valency of two predictor variables (see Table 1 and Table 2) was difficult to explain, and one possibility is to interpret it as greater awareness of the potential for violation of privacy that is

shared by more experienced (e.g. more frequent) users of the Internet (for the predictor variable *the possibility that the Internet as a medium preserves the user's right to privacy*), and because their use of the Internet could be for purposes other than seeking *parasocial* interaction (for the predictor variable *the potential of the Internet to provide information about fictional or real characters/persons*), since the use of television and the press can be more effective media choice for such activity.

Table 2. Predictors of the *desire* to use the Web/Internet (N=435)

Predictors of the desire to use the Internet (R=0.42)	β	Sig.
Fulfils the need for information on different topics	,18	,00
Is according to perceptive preferences	,15	,00
Enables personal entertainment if used*	,13	,01
User can use the medium while doing other jobs/activities	,12	,01
There is an abundance of visual content in the medium	,13	,01
The use of the medium preserves user's right to privacy*	-,10	,02

R – multiple regression; **β** – beta coefficients; **Sig.** – statistical level of significance

* – predictor variable that was related to both criterion variables

It must be noted that for the criterion variable *frequency of Web/Internet use* greater multiple correlation (R=0.56) and more predictors in regression analysis were found in our sample in comparison with the criterion variable *desire to use the Web/Internet* (R=0.42). This can be at least partially explained by the reduced variability of the second criterion. In fact, 81% of the respondents rated their *desire to use the Internet* by using the two highest points (4 or 5) on the rating scale (1-5), while the rating of *the frequency of Web/Internet use* had a much more even distribution of responses.

However, some research limitations should be emphasized regarding the presented results of regression analysis. The uncovered predictors in such analyses are largely dependant of the sample of subjects in research and of the method of regression analysis. If the subjects in our study were more experienced or non-experienced as Internet users, with more or less computer skills, if they had more or less limitations regarding their access to the Internet as a medium, if they were of different age group and employed, or if they had a substantially dissimilar set of interests and pattern of Internet related activities, the uncovered predictors of motivation for internet use would probably be different. In fact, in an earlier analysis with a somewhat different set of subjects (Bubaš *et al.*, 2001) the two uncovered sets of potential predictors of *frequency* of Web/Internet use and of the *desire* to use the Web/Internet were considerably different for the criterion *frequency* of Web/Internet use, and very dissimilar for the criterion *desire* to use the Web/Internet.

Table 3. Results of factor analysis of selected variables related to affinity for the Internet (N=435)

Survey items	Extracted factors				
	F1	F2	F3	F4	F5
There is an abundance of visual content in the medium	.67				
The medium is rich in textual content	.65				
It is possible to find expert content in the medium	.64				
Source of different cultural, art and esthetic content	.63				
Enables data to be received on daily and weekly news	.59				
Richness in information display (text, pictures, voice, music)	.58				
Content is of adequate esthetic quality (attractive design)	.57				
Content that is important to me is retrieved quickly / in time	.57				
Quantity of diverse entertaining content (for different people)	.55				
I can play games or pass time by using the medium	.55				
I have a positive attitude toward the technology of the medium	.53				
Fulfills my needs for information on different topics	.53	.32			
General quality of different types of content (for diverse users)	.52				
My economic / financial ability to use the medium		.73			
Physical availability of the medium (my access to the location of use / purchase)		.71			
Simplicity and ease of use for me personally		.70			
I possess needed knowledge for use of the medium		.65			
I have a sense of being free and unobstructed in use of the medium		.56			
The time that is available to me is not a limitation for use of the medium		.42			
By use of the medium I achieve a higher status among other people			.71		
Use of the medium would create favorable impressions about me in other people			.64		
The use of the medium makes my socializing with other people more successful			.59		
I feel that I am in contact with other people when I use the medium	.32		.59		
I feel a belonging to some distant group when I use the medium			.52		
The medium enables me to "shut out" my problems and "escape" from them				.64	
When I wish to, I can rest / relax by using the medium				.59	
I can identify with people / characters / personalities in the medium			.51	.54	
The medium enables me to entertain myself if I use it	.48			.48	
I can use the medium when I perform other jobs or activities				.46	
The medium enables me to identify with different personae / people			.39	.42	
I feel secure (without risk) when I use the medium					.73
The use of the medium preserves my right to user privacy					.59
I have confidence in the accuracy / truthfulness of information in the medium					.55
Through use of the medium I am secure from different types of material damage					.52
It is possible to use the medium without interference from other people					.45
The content that I find in the medium is agreeable					.36

Note: Principal components analysis with Varimax rotation was used. Factor loadings below 0.30 are not presented.

The results of factor analysis of the variables that were used as predictors of the two criteria for affinity for the use of the Internet are presented in Table 3. Even though there were eight factors with *eigenvalues* greater than 1.0 in the initial factor solution, the *Scree test* indicated that *five factors* should be preferred for principal components analysis. Furthermore, after preliminary factor analyses, eight items (of 45 in the survey) without sufficient loading on the extracted factors were excluded from factor analysis that yielded the final solution. The results of this final factor analysis are presented in Table 3.

The first factor (*F1*) in Table 3 represents diverse aspects of the users' evaluation of Web/Internet content quality and quantity. The *accessibility* of the Web/Internet and the *technological readiness* of its users are represented by the second factor (*F2*). The third factor (*F3*) is related to the fulfillment of the *social needs* of users. The media use motives of *entertainment* and *escape* are represented by the fourth factor (*F4*). Finally, the fifth factor (*F5*) is related to *confidence* associated with the use of the Web/Internet.

The results of factor analysis represent different aspects of Internet and user attributes that influence the affinity to use this medium:

- medium availability and technological readiness of the user,
- content quality/quantity and associated needs of the users,
- entertainment and escape motivation,
- social needs and potential for their fulfillment,
- confidence in the medium.

Discussion

Some of the results of the factor analysis are not different from the motives for Internet use identified by other authors. Interpersonal/social motives, entertainment/escape motives, and information seeking motives for Internet use were revealed in other studies (Korgaonkar *et al.*, 1999; Papacharissi and Rubin, 2000; Valkenburg and Soeters, 2001; Wei and Leung, 2001; Stafford and Gonier, 2004). For instance, the first factor (*F1*) in Table 3 resembles the *information motivation* factor that was reported in a study by Korgaonkar *et al.* (1999), the *information seeking* factor that was revealed by Papacharissi and Rubin (2000), the *surveillance* factor uncovered by Wei and Leung (2001), the *information* factor found in a factor analysis by Valkenburg and Soeters (2001), and also the *information* factor of gratification for Internet use that was reported by Stafford and Gonier (2004). However, the first factor (*F1*) that was uncovered in this study is rather broad regarding the content of the items that predominantly project on this factor (see Table 3) since the diverse aspects of the users' evaluation of Web/Internet associated with this factor include content that is related both to information seeking and entertainment, and also to the esthetic quality and media richness (pictures, music etc.). The fourth factor (*F4*) in Table 3 corresponds to the factor that appears in factor analyses that was labeled *escape* by Papacharissi and Rubin (2000) or *diversion* by Wei and Leung (2001), and is similar in content to the factor *social escapism* that was revealed in the study by Korgaonkar *et al.* (1999) since it contains projections of both escape and entertainment variables. The third factor

(F3) in Table 3 is comparable to the *socializing/socialization* or *online social interaction* factors uncovered in all previously mentioned studies. It must be noted that the items in Table 3 that are related to *entertainment* do not predominantly project on a separate factor and this was also characteristic of the results of factor analyses that were performed by Korgaonkar *et al.* (1999) and Stafford and Gonier (2004). Finally, the fifth factor (F5) in Table 3 at least partly corresponds to the *nontransactional privacy concerns* factor revealed by Korgaonkar *et al.* (1999). Interestingly, the second factor (F2) in Table 3 that is composed of items that represent *technological readiness of the user and availability of the Internet* was not revealed in comparable studies, except for the vaguely related factor of *affinity with computers* that was reported by Wei and Leung (2001). The second (F2) and fifth factor (F5) in Table 3 indicate that affinity for the use of the Internet may be negatively influenced by the limitations of the user to access the medium and its content, and also by the level of confidence of the user in the medium.

A well known *expectancy theory* of motivation (Vroom, 1964) generally states that *the intensity of motivation* to perform a specific activity depends not only on *the value or attractiveness of the goal(s)* that can be achieved by this activity, but also on *the likelihood that the activity will produce the desired outcome*. Besides this conceptualization, it should be borne in mind that a goal-oriented activity usually begins when the value of the goal(s) is in balance with the perceived effort that is needed to attain it/them. The actors are also usually aware that the likelihood of the outcomes is influenced both by *personal ability/competence in a certain activity* and *the contextual or environmental attributes and fluctuations*. Affinity toward the Internet and the intensity of Internet related motivation, whatever the motives are, is shaped by expectancy, effort and ability variables, as well as by the availability of the Internet and the complexity of its technology for the user. For instance, in a study of the training effects for Internet use among older adults, it was found that high computer efficacy and lower computer anxiety had a positive effect on time spent online (Cody *et al.*, 1999).

Since many of the *predictors* of frequency of Internet use were related to *the availability/technology* of the Internet and to *the technological readiness* of the users (see Table 2), it can be concluded that the use of this medium is moderated not only by the type of potential motive(s) of the users, but also by their expectancy, effort and ability/efficacy, as can be induced from the content of the variables that project on factor F2 in Table 3. Negative motivation for Internet use is also possible and can be caused by computer anxiety (Tewksbury and Althaus, 2000; Rockwell and Singleton, 2002), by confidentiality concerns and content concerns (U.S. Department of Commerce, 2002, pp. 73-74), by the apprehensiveness of the World Wide Web (Susskind, 2004), and also by preference for face-to-face interaction and avoidance of other Internet users who might have suspect motives (Ebersole, 2000). It must be noted that the factor F5 in Table 3 is related to *confidence* in the medium and/or *risk perception* in Internet use.

Suess *et al.* (1998) have investigated how media uses shape and are shaped by the interaction and relationships of children and teenagers with their peer groups. Numerous *social factors and motives* have been found to influence affinity for different media and specific medium content and some of them are illustrated by the

variables that project on factor *F3* in Table 3. These variables correspond to the elements of the conceptual model of affinity for the use of the Internet that are listed in the categories (*para*)*social motives* and *style/image* of user in Figure 1.

The content of the variables that project on factor *F3* in Table 3 is commonly found in the results of factor analyses of Internet motives and is related to escape, passing the time, entertainment and/or fun seeking. The fact that the factor *F1* revealed in this study corresponds to a great extent to the category *information needs* of the Internet user and in part to the category *richness/interactivity* of the conceptual model of affinity for the use of the Internet (see Figure 1) may indicate a more general evaluation of the Internet by its users in terms of the overall potential to interact with content material that is characterized by quality and diversity, personalization and multimedia/interactivity. In addition, comparable variables were found to be the most influential potential predictors of the desire to use the Internet (see Table 2).

Conclusion

Affinity for the Internet was investigated in this study through the development of a *conceptual model* (see Figure 1) for the classification of the elements that may affect the intensity and satisfaction that is related to Internet use. This conceptual model was used to create items for a survey. The data collected in the survey were analyzed by regression analyses and factor analysis. Two substantially different criteria for affinity for the use of the Internet were investigated: (1) *frequency of Internet use* and (2) *desire to use the Internet*. The results of regression analyses revealed potential *predictor variables* for the given sample of respondents. In addition, factor analysis was performed to identify the factors of motivation for the use of the Web/Internet, and *five factors* were discovered that represent the potential dimensions of affinity for the Internet. These uncovered factors are in considerable correspondence with the factors that were revealed by other researchers of motives for Internet/Web use.

Since most of the *elements* of the conceptual model of affinity for the Internet (see Figure 1) were found among the potential *predictor variables* for the two criteria of affinity for the Internet (see Table 1 and Table 2), and also among the *variables that had high loading on the factors revealed by factor analysis* (see Table 3), it can be assumed that the conceptual model has proven useful for this purpose. The elements of this conceptual model can be found in the corresponding theoretical models of other authors. However, the empirical findings that were presented in this paper suggest that development of corresponding theoretical models should at least partly be induced from the results of factor analysis.

Some limitations in the interpretation of the results of this research should also be considered. The populations of Internet users and patterns of Internet/Web use may undergo change over time because of lowering of cost of Internet connection from home, more use of broadband connections, greater availability of novel services and technologies, increased experience of Internet users, and less newcomers in the population of adult users of this medium. For instance, Fox (2005) has reported a considerable increase in various online activities when broadband Internet

users from home are compared to dial-up users from home, as well as a decreased number of new Internet users in the USA.

Further research of the conceptual model that was presented in this paper could include the application of similar methodology to analyze affinity for traditional media (radio, television, the press) and to test the more advanced conceptual model for generalization in those media use contexts.

REFERENCES:

- Amiel, T., Sargent, S.L. (2004) "Individual differences in Internet usage motives", *Computers in Human Behavior*, 20, 711-726.
- Blake, B. F., & Neuendorf, K. (2004) "Cross-national differences in website appeal: A framework for assessment", *Journal of Computer-Mediated Communication*, 9(4). Retrieved 15. March 2006, URL: http://jcmc.indiana.edu/vol9/issue4/blake_neuendorf.html
- Blumer, J. G., & Katz, E. (1974) *The uses of mass communication*. Beverly Hills, CA: Sage.
- Bonfadelli, H. (2003) "Online communication: Putting the knowledge gap theory into perspective". In: A. Schorr, W. Campbell and M. Schenk (Eds.), *Communication Research and Media Science in Europe*. Berlin: Mouton de Gruyter.
- Bubaš, G., Kliček, B., & Hutinski, Ž. (2001) "Decision tree analysis of the predictors of Internet affinity", *Journal of Information and Organizational Sciences*, 25(2), 59-67.
- Chou, C. (2003), "Incidences and correlates of Internet anxiety among high school teachers in Taiwan", *Computers in Human Behavior*, 19, 731-749.
- Cody, M. J., Dunn, D., Hoppin, S., & Wendt, P. (1999) "Silver surfers: Training and evaluating Internet use among older adult learners", *Communication Education*, 48(4), 269-286.
- Coyle, J. R., & Thorson, E. (2001) "The effects of progressive levels of interactivity and vividness in Web marketing sites", *Journal of Advertising*, 30(3), 65-77.
- Cruikshank, B. (2001) "Technology: Why Aren't More People Online?", *The Galt Global Review* [Online]. Galt Western Personnel Ltd., Retrieved 15 March 2006, URL: http://www.galtglobalreview.com/infotech/people_offline.html
- Daft, R. L., & Lengel, R. H. (1986) "Organizational information requirements, media richness and structural design", *Management Science*, 32(5), 554-571.
- Ebersole, S. (2000) "Uses and gratifications of the Web among students", *Journal of Computer Mediated Communication* [Online], 6(1), Retrieved 15 March 2006, URL: <http://jcmc.indiana.edu/vol6/issue1/ebersole.html>

- Eveland, W. P., Jr. (2003) "A 'Mix of Attributes' Approach to the Study of Media Effects and New Communication Technologies", *Journal of Communication*, 53(3), 395-410.
- Flanagin, A. J. & Metzger, M. J. (2001) "Internet use in contemporary media environment", *Human Communication Research*, 27(1), 153-181.
- Fox, S. (2005) *Digital Divisions*. Pew Internet and American Life Project, Washington, DC, Retrieved 15 March 2006, URL: http://www.pewinternet.org/PPF/r/165/report_display.asp
- Geissler, G. L. (2001) "Building customer relationships online: The Web site designers' perspective", *Journal of Consumer Marketing*, 18(6), 488-502.
- Havick, J. (2000) "The impact of the Internet on a television-based society", *Technology in Society*, 22, 273-287.
- Howard, P. E. N., Rainie, L., & Jones, S. (2002). "Days and nights on the Internet". In: B. Wellman and C. Haythornthwaite (Eds.), *The Internet in Everyday Life* (pp. 74-113). Malden, MA: Blackwell Publishers.
- Internet World Stats (2006) *Internet Usage in Europe: Internet User Statistics & Population for 50 European Countries and Regions*. Miniwatts International, Inc., Retrieved 15 March 2006, URL: <http://www.internetworldstats.com/stats4.htm#eu>
- Joines, J. L., Scherer, C. W., & Scheufele, D. A. (2003) "Exploring motivations for consumer Web use and their implications for e-commerce", *Journal of Consumer Marketing*, 20(2), 90-108.
- Ko, H., Chang-Hoan, C., & Roberts, M. S. (2005) "Internet uses and gratifications: A structural equation model of interactive advertising", *Journal of Advertising*, 34(2), 57-70.
- Korgaonkar, P. K., & Wolin, L. D. (1999) "A Multivariate Analysis of Web Usage", *Journal of Advertising Research*, Vol. 39, 1999
- Kraut, R., Mukhopadhyay, T., Szczypula, J., Kiesler, S., & Scherlis, W. (1998) "Communication and Information: Alternative Uses of the Internet in Households", *CHI '98, Proceedings of the 1998 Conference on Human Factors in Computing Systems*, Los Angeles, pp. 236-275.
- Lin, C. A. (2003) "An Interactive Communication Technology Adoption Model", *Communication Theory*, 13(4), 345-365.
- Loges, W. E., & Jung, J.-Y. (2001) "Exploring the Digital Divide: Internet connectedness and age", *Communication Research*, 28(4), 536-562.
- McCullough Johnston, K. (2001) "Why e-business must evolve beyond market orientation?", *Internet Research: Electronic Networking Applications and Policy*, 11(3), 213-225.

- Mitra, A., Willyard, J., Platt, C. A., & Parsons, M. (2005). "Exploring Web usage and selection criteria among male and female students", *Journal of Computer-Mediated Communication*, 10(3). Retrieved 15. March 2006, URL: <http://jcmc.indiana.edu/vol10/issue3/mitra.html>
- Nie, N. H., & Erbring, L. (2000) *Internet and Society: A Preliminary Report* [White paper]. Stanford Institute for the Quantitative Study of Society, Stanford, CA, Retrieved 15 March 2006, URL: http://www.stanford.edu/group/siqss/Press_Release/internetStudy.html
- Papacharissi, Z. & Rubin, A. M. (2000) "Predictors of Internet use", *Journal of Broadcasting and Electronic Media*, 44(2), 175-196.
- Perry, M. & Bodkin, C. (2000) "Content Analysis of Fortune 100 Company Web Sites", *Corporate Communication: An International Journal*, 5(2), 87-96.
- Pew / Internet (2005a) *Daily Internet Activities* [Data compilation table]. Pew Internet and American Life Project, Washington, DC, Retrieved 15 March 2006, URL: http://www.pewinternet.org/trends/Daily_Activities_5.18.05.htm
- Pew / Internet (2005b) *Internet Activities* [Data compilation table], Pew Internet and American Life Project, Washington, DC, Retrieved 15 March 2006, URL: http://www.pewinternet.org/trends/Internet_Activities_5.18.05.htm
- Pew / Internet (2004) *Demographics of Internet Users* [Data compilation table]. Pew Internet and American Life Project, Washington, DC, Retrieved 15 March 2006, URL: <http://www.pewinternet.org/trends/DemographicsofInternetUsers.htm>
- Pew Research Center for the People and the Press (2000) *Internet Sapping Broadcast News Audience*. Retrieved 15. March 2006, URL: <http://peoplepress.org/reports/display.php3?ReportID=36>
- Ramirez, A., Jr., Walther, J. B., Burgoon, J. K., & Sunnafrank, M. (2002) "Information-seeking strategies, uncertainty, and computer-mediated communication: Toward a conceptual model", *Human Communication Research*, 28(2), 213-228.
- Rockwell, S. C., Singleton, L. (2002) "The effects of computer anxiety and communication apprehension on the adoption and utilization of the Internet", *Electronic Journal of Communication*, 12(1-2), Retrieved 15 March 2006, URL: http://www.cios.org/getfile/rockwell_v12n102
- Rosengren, K., Wenner, L., & Palmgreen, P. (1985) *Media gratifications research*, Beverly Hills, CA: Sage.
- Sánchez-Franco, M. J., & Roldán, J.L. (2005) "Web acceptance and usage model: A comparison between goal-directed and experiential users", *Internet Research*, 15(1), 21-48.

- Selwyn, N., Gorard, S., & Furlong, J. (2005) "Whose Internet is it anyway? Exploring adults' (non)use of the Internet in everyday life", *European Journal of Communication*, 20(1), 5-26.
- Sharafi, P., Hedman, L., & Montgomery, H. (2004) "Using information technology: engagement modes, flow experience, and personality orientations", *Computers in Human Behavior*, 22, 899-916.
- Sherry, J. L. (2004) "Flow and Media Enjoyment", *Communication Theory*, 14(4), 328-347.
- Short, J. A., Williams, E., & Christie, B. (1976) *The social psychology of telecommunication*, London: John Wiley & Sons.
- Spitzberg, B. H. (2006) "Preliminary development of a model and measure of computer-mediated communication (CMC) competence", *Journal of Computer-Mediated Communication*, 11(2). Retrieved 15 March 2006, URL: <http://jcmc.indiana.edu/vol11/issue2/spitzberg.html>
- Stafford, T. F., & Gonier, D. (2004) "What Americans like about being online", *Communications of the ACM*, 47(11), 107-112.
- Stafford, T. F., Stafford, M. R., Schkade, L.L. (2004) "Determining uses and gratifications for the Internet", *Decision Sciences*, 35(2), 259-288.
- Suess, D., Suoninen, A., Garitaonandia, C., Juaristi, R. K., & Oleaga, J. A. (1998) "Media use and the relationships of children and teenagers with their peer groups: A study of Finnish, Spanish and Swiss cases", *European Journal of Communication*, 13(4), 521-538.
- Susskind, A.M. (2004) "Electronic commerce and the World Wide Web apprehensiveness: An examination of consumers' perceptions of the World Wide Web", *Journal of Computer-Mediated Communication*, 9(3). Retrieved 15 March 2006, URL: <http://jcmc.indiana.edu/vol9/issue3/susskind.html>
- Tewksbury, D. (2003) "What Do Americans Really Want to Know? Tracking the Behavior of News Readers on the Internet", *Journal of Communication*, 53(4), 694-710.
- Tewksbury, D. & Althaus, S.T. (2000) "An examination of motivation for using the World Wide Web", *Communication Research Reports*, 17(2), 127-138.
- U.S. Department of Commerce (2002) *A Nation Online: How Americans Are Expanding Their Use of the Internet*. Economics and Statistics Administration, National Telecommunications and Information Administration, Washington, D.C., Retrieved 30 June 2005, URL: http://www.ntia.doc.gov/opadhome/digitalnation/index_2002.html
- Valkenburg, P. M. & Soeters, K. E. (2001) "Children's positive and negative experiences with the Internet: An exploratory survey", *Communication Research*, 28(5), 652-675.

- Vorderer, P., Klimmt, C., & Ritterfeld, U. (2004) "Enjoyment: At the Heart of Media Entertainment", *Communication Theory*, 14(4), 388-408.
- Vroom, V. H. (1964) *Work and Motivation*. New York: John Wiley and Sons.
- Wei, R. & Leung, L. (2001) "Impact of Internet use on traditional media, leisure and work: A path model approach", *Paper presented at the 51st Annual Conference of the International Communication Association*, Washington, D.C., May 24-28.
- Which? Online (2001) 'The Net Result: evolution not revolution' – *Which? Online annual internet survey*. Which? Online, Hertford, UK, Retrieved 15 March 2006, <http://www.which.net/media/pr/jun01/general/internet.html>

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Konceptualni model, potencijalni prediktori i dimenzije sklonosti prema uporabi Interneta

SAŽETAK

Brojne aktivnosti koje su povezane s uporabom Interneta mogu biti korisne za privatni život i profesionalne aktivnosti pojedinca. Motivacija za uporabu Interneta je važna istraživačka tema imajući u vidu populacije osoba i posebne skupine koje pokazuju nisku razinu korištenja Interneta i pored dostupne telekomunikacijske infrastrukture te zadovoljavajućih financijskih mogućnosti za korištenje tog medija. U ovom je članku prikazan konceptualni model sklonosti prema uporabi Interneta, a izloženi su i rezultati empirijskog istraživanja potencijalnih prediktora i faktora koji utječu na motivaciju za korištenje Interneta. Provedena je anketa na 435 sveučilišnih studenata i podaci su analizirani postupcima regresijske i faktorske analize. U radu je raspravljeno o utvrđenim potencijalnim prediktorima frekvencije uporabe Interneta, kao i želje za korištenjem Interneta, a također i o dimenzijama motivacije za uporabu Interneta koje su dobivene postupkom faktorske analize.

Ključne riječi: Internet, motivacija, sklonost prema uporabi Interneta, masovni mediji, anketa, regresijska analiza, faktorska analiza