Why They Become Addicted:
Relationship between Microblogging Usage and Addiction

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Abstract

Internet addiction is a relatively new and fast-growing stream in IS research. In recent years, academic literature has started to investigate its related conception, symptoms, characteristics and outcomes in various contexts, describing it with different terms. Considering the popularity and addictive attributes of microblogging, in contrast with the limited published research on the addiction of such applications, we believe that it is meaningful to fill in this research gap. In this paper, we argue that Internet addiction is a psychological status resulting from cumulated Internet usage, and should be able to be interpreted by investigating the continued usage behavior. Based on a thorough discussion on previous studies, in this paper, we analyze the characteristics of microblogging usage and addiction, identify corresponding constructs, and propose a research model for understanding the relationships between usage types and user addiction. The model is empirically tested by using the Structural Equation Model (SEM) analysis. The results indicate that not all microblogging usages will induce addiction, and addiction would emerge and grow asynchronously along four dimensions.

1. Introduction

As information systems (IS) play more and more important roles in personal lives, organizations and societies, the adoption and continued usage of information technologies has become a prominent mainstream in IS research. Rationalities, attitude-based actions, and other decision mechanisms are widely discussed to explain the reasons for IS usage, emphasizing the positive outcomes in order to promote one’s usage behavior [21]. However, a coin has two sides. The negative effects of IS usage, especially those resulting from pervasive Internet-based usage, such as reduced work performance, compromised social life, and even more severe mental problems are drawing increasing academic attentions [5,7,15,22,26].

Various terms are applied to describe the above phenomena including problematic Internet use, Internet addiction disorder, compulsive use, computer addiction, technology dependency and pathological Internet use [2,4]. In this paper, we refer to the term “Internet addiction” as the negative psychological status through Internet usage.

Researchers have chosen diverse contexts in addiction studies, including online games [4], Internet [13,15], social networks [20], mobile email [22], instant messaging [11], and online auction [21]. However, research on microblogging addiction is quite rare.

Microblogging emerged in 2006, and developed rapidly with a fast-growing user population. As estimated by Twopchart, Twitter has 0.5 billion registered users in Feb 2012, and according to Xinhua News of China, Sina Weibo, a popular microblogging platform in China has more than 0.3 billion users till Feb 2012.

Unlike other Internet addiction contexts, such as games and auction, users of microblogging are distributed in a wider age range and more diverse industries. They usually seek for more positive and meaningful outcomes in the use of microblogging, such as communication and information sharing, instead of mental relaxation and stimulation. Therefore, it is inappropriate to directly apply the conclusions from other contexts in the case of microblogging usage. Comparing to blogging and Short Message Service, researchers have summarized microblogging’s characteristics as limitation on length of a posting, support for mobile clients, and being published openly on the web [8,19]. Viewing microblogging from the perspective of addiction, these characteristics are also potentially addictive attributes. At first, support for mobile clients indicates that user’s expressions could get rapid feedbacks from others anywhere anytime,
activating users’ enthusiasm in deep devotion. Furthermore, the limitation on length increases the possibilities for users to get more brief information, which means the information on microblogging is more fragmented and frequently updated. Meanwhile, the web-wise publication enlarges users’ enjoyment on personal influence.

Considering its popularity and addictive attributes, as well as the limited published research on microblogging addiction, we believe that it is meaningful to choose microblogging as a context for studying addiction, so as to fill in the research gap.

In this paper, we plan to investigate:
(a) How to describe Internet addiction? Is it a psychological status or consequent behavior?
(b) What is the motivation of microblogging usage?
(c) How the microblogging usage induces addiction? What is the relationship between them?

Discovering the answers to these questions could help us to understand the reasons and the process of getting addicted, as well as to provide implications for seeking potential methods to guard against addiction. The remainder of this paper is organized as follows: The next section is about the literature review of related research. The third section presents the research model and hypotheses. The fourth section describes the methodology and results. And the last part ends with discussion and conclusion.

2. Literature review

2.1. The concept of Internet addiction

Internet addiction, since its first appearance in academic study, has been investigated for over decades in various contexts and described with different terms [20]. Due to its newly and fast growing development, the concept of Internet addiction has not been uniformly defined [2,21]. Furthermore, instead of discussing the specific definition, most researchers studied the symptoms, scales, and the characteristics to illustrate and measure addiction.

Considering its similarities to other behavioral addictions (e.g. smoking, eating), some researchers adopted the following six criteria to describe Internet addiction [1]. 1) Withdrawal: leading to negative emotions because of discontinued usage; 2) Conflict: conflicting with user’s other work and life arrangements; 3) Relapse and reinstatement: being failed to quit usage voluntarily; 4) Salience: dominating user’s thoughts and activities; 5) Mood Modification (or euphoria): obtaining relief and thrill; 6) Tolerance: achieving the same level of thrill needs a greater undertaking extent [3,21,22]. Moreover, the former three criteria and behavioral salience are identified as core criteria while the others are peripheral ones, and data analysis shows that peripheral criteria are prerequisites for core ones, while people endorsing core criteria are more typical addicted users [15].

Davis et al. [5] proposed that Internet addiction consists of four dimensions: diminished impulse control (be independent of anxiety), loneliness/depression (feelings of negative cognitions related to the Internet restricted usage), distraction (avoidance from other duties due to usage), and social comfort (feelings of safety and security in the internet interaction) [15].

Young [26] developed a modified instrument for addiction in terms of an eight-item questionnaire, and the respondents with five or more “yes” to these questions were classified as addictive users.

Besides the above discussions, Internet addiction is also characterized by excessive amounts of usage time, intense preoccupation with use, decreasing involvement in social and professional connections, and compromised life quality [13,15,20,22].

2.2. The antecedents and outcomes of Internet addiction

Internet addiction raised the attentions from the academic, media, and medicinal fields, mainly because of its negative outcomes [20]. Generally, these impacts are either on the user’s personal life (e.g. disturbing family relationship, physical risk, pathological problems, isolation), or on professional life (e.g. academic probation, work distraction, lessened productivities) [4,22,24,26]. Both the individual and organizational manifestations are widely analyzed.

About the antecedents, researchers mainly identified personal factors, such as demographics, self compassion, cognitive absorption, shyness and alienation [11-13,15].

2.3. Microblogging

Microblogging, a novel Internet service, began in 2006, enabling short posting from mobile terminals, resulting in rapid growth on users’ basis as well as growing researcher interests. The majority of academic findings on microblogging usage includes: 1) characteristic analyses as compared with other Internet tools, such as blog, SNS and Instant Message [12,13]; 2) the general motivations of usage [14,27]; 3) social presence and communication in microblogging [17,19]; 4) information sharing and knowledge management in microblogging [7,18]; 5) the acceptance and continued
usage intentions [17,18]. As far as known, no research has been published from the addiction point of view.

3. Research model

3.1. Conceptual model

As mentioned in section 2, many research discussed the description and analysis of Internet addiction conception, as well as symptoms, characteristics and effects. Although there is no uniformed definition and expression term [20,21], the existing terms essentially represent two distinct emphases: psychology traits (e.g. addiction, disorder, dependency), and actual behavior (e.g. use). Correspondingly, symptoms and effects also follow these two categories. Following the example of Brown’s [1] six criteria, they focus either on psychology (e.g. mode modification, withdrawal, cognitive salience, relapse and reinstatement) or on behavior (e.g. conflict, relapse and behavior salience). In this paper, we choose to use the term “Internet addiction” rather than other terms such as problematic usage, emphasizing the user’s negative psychological status because of Internet usage.

Moreover, we believe that Internet addiction is a result of cumulated Internet usage, and once a user’s psychological status turns into addiction, many negative outcomes will appear. The whole process and the relationship between Internet usage and Internet addiction is shown in Figure 1. Internet addiction induces negative effects on users’ personal and professional life, which is widely analyzed at the individual and organizational levels [4,22,24,26]. Therefore, our study focuses on illustrating how the Internet usage results in Internet addiction.

![Figure 1. Conceptual model](image)

Few studies identified the logic relationship except Jia et al. [15], who stated that “user’s characteristics (e.g., demographics, traits) predispose one to experience certain psychological states during technology use, leading to certain behavioral and affective usage outcomes.” One limitation of this logic is that it ignores the cumulated process of the addiction emergence. Addiction is a psychological state because of continued usage for a certain period of time. User’s characteristics may facilitate this process, but they are not the essential cause. Another limitation lies in confusing the concepts of adoption and continued usage. Once again, addiction is the consequence of continued usage, and therefore it is not proper to identify personal and system characteristics directly as antecedents. The last limitation is that in Jia’s [15] model, the concept of addiction is not distinguished between a psychological state and a behavior appearance. Therefore, the discussions about addiction and its outcomes are mixed [4,20], without reflecting the relationship shown in Figure 1.

3.2. Microblogging usage

Microblogging is a new web2.0 service, allowing participants to post and exchange concise contents, such as short sentences, images, links, etc [17]. Taking twitter for example, the most popular microblogging service, the participants of it are geographically distributed across all continents. Twitter is widely studied as a data resource [7,14,17,18].

Usage of microblogging can be analyzed according to specific activities (i.e. what users do) or use motivations (i.e. what users do for). Posting, reading, forwarding and replying are the common activities on microblogging. In some research streams, for example Social Network Analysis, these activities play different roles due to their distinguished impacts on information diffusion. However, with regard to addiction, the motivations of use would be more important than the activity types.

In our study, usage is analyzed according to diverse motivations. A few studies involved general motivations, such as Java [14], who labeled three categories of twitter usage: daily chatter, sharing resource/URLs, and reporting news. Comparably, Zhao & Rosson [27] summarized the motivations as keeping social touch, sharing information and releasing emotional stress. Particularly, microblogging’s crucial impacts on social communication, interaction and presence were well discussed. Twitter was used for making daily experiences visible for others [19]; for being connected in certain social networks by choosing whom to follow [16]; for maintaining on-going relationships [7]; and for interacting with others for collaboration [10]. We conclude the motivations about connection and interaction as social communication. Some studies concerned the information exchange on microblogging. Participants in twitter can keep up with newest information [6]; share tacit and explicit knowledge [18]; get quick reflections and discussions [8]. In this paper, these usage motivations are summarized as information sharing.
3.3. Microblogging addiction

As mentioned in the previous section, numerous symptoms and criteria of addiction were put forward in recent research, among which, in this paper, we refer to Davis’s [5] four dimensions because of the following reasons: 1) Davis’s work is mainly about psychological characteristics, which is consistent with our illustration of addiction; 2) Though Brown’s [1] six criteria are also widely accepted, and are called “fundamental to the present study” [4], these criteria mix up the behavior and psychology without clear distinction; 3) Young’s [26] questionnaire is vivid and easy to identify the addictive users, however the questions are not classified according to certain standards, which implies difficulties in investigating the relationship in the conceptual model; 4) Other characteristics e.g. the frequency and time of usage, are not capable in describing the degree of users’ psychological dependency on the technology; 5) Last but most importantly, Davis’s dimensions have no intersection with one another, which make it possible for our study to find out the effects on addiction in specific dimensions.

3.4. Hypothesis development

Based on the previous discussions, a research model is consequently developed (Figure 2). The relationships proposed in this model will be analyzed briefly because most of them are already discussed in the sections above.

While describing the conceptual model, we explain the assumptions of relationship between use type and addiction in details. Therefore,

H1: Usage for social communication is positively related to addiction.

H2: Usage for information sharing is positively related to addiction.

Considering that addiction is composed of four dimensions, we have the followings:

H1a: Social communication is positively related to diminished impulse control.

H1b: Social communication is positively related to loneliness/depression when use restrictedly.

H1c: Social communication is positively related to social comfort.

H1d: Social communication is positively related to distraction.

H2a: Information sharing is positively related to diminished impulse control.

H2b: Information sharing is positively related to loneliness/depression when use restrictedly.

H2c: Information sharing is positively related to social comfort.

H2d: Information sharing is positively related to distraction.

4. Method and results

4.1. Measures

4.1.1. Social communication. Social presence is a similar concept with social communication, being described as “the extent to which people believe that the environment is personable and humanistic” [20], and its measurement scales are fully developed. However the items for social presence measure user’s sense of warm, personal, sensitive, and sociable feelings through usage, and in our study, social communication is identified to measure the usage motivation for social interaction and presence. It’s quite different in feeling and motivation. For example, an item of social presence is “There is a sense of human contact in microblogging”, which means all persons can give their judgement, no matter they actually use the microblogging or not. Contrarily, to measure social communication, the above item is modified as “I use microblogging for having human contact”.

4.1.2 Information sharing. Though a good many researchers mentioned Twitter is used for sharing information [13,18,19,24], there is no existing scale items for the measurement of information sharing. Based on the prior researchers’ discussion, we develop four items to reflect three main categories of information: news, resources, opinions (knowledge).

4.1.3 Microblogging addiction. Instead of treating addiction as a single variable, in this study, we adopt dimensions of addiction from Davis’s [3] research as four individual constructs: diminished impulse control, loneliness/depression, distraction, and social comfort. Furthermore, we adapt the measurement scales,
because some of them describe user’s behavior, not suitable for our emphasis on users’ psychology, and some are not appropriate in the context of microblogging. Hereby we treat addiction as a gradual degree instead of a distinct status, as there is no specific criterion to exactly determine the border between addicts and non-addicts [25]. In other words, this research is not intended to provide any rules for judging whether a user is addicted or not. However, we design to measure addiction as a degree to which a user psychologically depends on the use of microblogging, along the four dimensions discussed above.

All items used seven-point Likert scales anchored from 1 (for strongly disagree) to 7 (for strongly agree). The respondents were required to choose an option that was the most representative of their preference. Table 1 presents constructs and items.

Table 1. Constructs and measurement items

<table>
<thead>
<tr>
<th>Construct</th>
<th>Ref.</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diminished Impulse Control (DIC)</td>
<td>[5]</td>
<td>DIC1: I often keep thinking about something I experienced on microblogging well after I have logged off. DIC2: When I am not using the microblogging platform, I often think about it. DIC3: I can’t stop thinking about the microblogging.</td>
</tr>
<tr>
<td>Loneliness/Depression (LD)</td>
<td>[5]</td>
<td>LD1: I am less lonely when I am using microblogging. LD2: I cannot see myself ever without the microblogging for too long. LD3: The microblogging is an important part of my life. LD4: I feel helpless when I don’t have access to the microblogging.</td>
</tr>
</tbody>
</table>

D1: When I am microblogging I don’t think about my responsibilities. D2: Through microblogging, I can ignore the unpleasant things.

SCO1: I use microblogging for a sense of human contact. SCO2: I use microblogging for maintaining on-going relationships. SCO3: I use microblogging for a sense of human warmth. SCO4: I use microblogging for a sense of human sensitivity.

IS1: I use microblogging for keeping up with the timely news. IS2: I use microblogging for sharing resources. IS3: I use microblogging for sharing my thoughts and reflections. IS4: I use microblogging for offering and getting knowledge.
4.2. Research method

The IT artifact chosen for this study is microblogging, without limitation on specific platform. To examine the proposed hypothesis in research model, a survey was conducted, containing questions to ensure the respondents were current microblogging users.

For applying partial least squares (PLS) for data analysis, the recommended minimal sample size is ten times the maximum items number of a latent variable [23], leading to a required sample size of at least 60 in our model. 133 fully completed questionnaires were obtained in the survey. Though the sample size is not large, it still meets the needs of required minimum sample size, as there are only six constructs in our model. 33% of the samples were undergraduate students from two introductory information courses at Renmin University of China, who finished the questionnaires in hardcopy, while the others were working staffs and graduated students being approached through a personalized email. Empirical data from staffs and students was supposed to reduce the sample’s utility on usage behavior preference, to make more general conclusions. The whole questionnaire took less than 20 min to complete. Data was collected over a two week period in April 2012. Males (51%) and females (49%) formed almost equal proportions of participants, and all lived in China. The majorities of participants were young (93% were under 30 years old) and educated persons (90% were or once were university students), because they were supposed to be innovative and enrolled in microblogging with a higher possibility comparing to other groups. More detailed demographic information is shown in Table 2.

Table 2. Demographics (n=133)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>Frequency (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18-22</td>
<td>63 (47%)</td>
</tr>
<tr>
<td></td>
<td>23-30</td>
<td>61 (46%)</td>
</tr>
<tr>
<td></td>
<td>31-45</td>
<td>9 (7%)</td>
</tr>
<tr>
<td>Highest level of education</td>
<td>Junior College or Pre-U</td>
<td>13 (10%)</td>
</tr>
<tr>
<td></td>
<td>Bachelor</td>
<td>76 (57%)</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>37 (28%)</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>7 (5%)</td>
</tr>
<tr>
<td>History of Internet usage</td>
<td>1-3 years</td>
<td>26 (20%)</td>
</tr>
<tr>
<td></td>
<td>3-5 years</td>
<td>25 (19%)</td>
</tr>
<tr>
<td></td>
<td>5 years above</td>
<td>82 (61%)</td>
</tr>
<tr>
<td>Average frequency of microblog usage</td>
<td>Once a week</td>
<td>27 (20%)</td>
</tr>
<tr>
<td></td>
<td>Once several days</td>
<td>22 (17%)</td>
</tr>
<tr>
<td></td>
<td>Less than an hour a day</td>
<td>39 (29%)</td>
</tr>
<tr>
<td></td>
<td>Hours a day</td>
<td>45 (34%)</td>
</tr>
</tbody>
</table>

PLS was chosen for estimation in this study, because of its ability to model the relationship among multiple constructs in small to medium sized samples [20,23].

The internal consistency reliability (ICR) of the study was assessed by computing Cronbach's alpha and the composite reliability coefficients (Fornell coefficients), as shown in Table 3. Generally, Cronbach's alpha higher than 0.6 and Fornell coefficients higher than 0.8 indicate acceptable reliability [9]. In our study, the Cronbach's alpha values range from 0.697 (for SCO) to 0.830 (for SC), while the Fornell coefficients range from 0.810 (for SCO) to 0.884 (for SC). Therefore, the reliability of the scales can be accepted.

Table 3. Construct statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIC</td>
<td>0.746</td>
<td>0.855</td>
</tr>
<tr>
<td>LD</td>
<td>0.790</td>
<td>0.865</td>
</tr>
<tr>
<td>SC</td>
<td>0.830</td>
<td>0.884</td>
</tr>
<tr>
<td>D</td>
<td>0.801</td>
<td>0.816</td>
</tr>
<tr>
<td>SCO</td>
<td>0.697</td>
<td>0.810</td>
</tr>
<tr>
<td>IS</td>
<td>0.792</td>
<td>0.867</td>
</tr>
</tbody>
</table>

To assess discriminant validities, we examined item loadings to construct correlations. As shown in Table 4, the results from the confirmatory factor analysis (CFA) clearly mark measurement items into the six constructs in the model.

Convergent validity was evaluated by the average variance extracted (AVE). According to related studies, AVE values higher than 0.5 are acceptable (i.e., the square root of AVE is higher than 0.707). For a satisfactory degree of discriminant validity, the square root of AVE of a construct should exceed inter-construct correlations that reflect the variance shared between the construct and the other ones in the model [9]. In our research, as shown in Table 5, convergent and discriminant validities of the model both attain a satisfying level, with all the AVE square root values above 0.707 and higher than all inter-construct correlations.

Table 4. Loading and cross-loading

<table>
<thead>
<tr>
<th></th>
<th>SCO</th>
<th>IS</th>
<th>DIC</th>
<th>LD</th>
<th>SC</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCO1</td>
<td>.648</td>
<td>.201</td>
<td>.236</td>
<td>.300</td>
<td>.179</td>
<td>.104</td>
</tr>
<tr>
<td>SCO2</td>
<td>.743</td>
<td>.328</td>
<td>.307</td>
<td>.380</td>
<td>.245</td>
<td>.074</td>
</tr>
<tr>
<td>SCO3</td>
<td>.786</td>
<td>.401</td>
<td>.350</td>
<td>.346</td>
<td>.399</td>
<td>.329</td>
</tr>
<tr>
<td>SCO4</td>
<td>.693</td>
<td>.192</td>
<td>.221</td>
<td>.264</td>
<td>.409</td>
<td>.315</td>
</tr>
<tr>
<td>IS1</td>
<td>.363</td>
<td>.811</td>
<td>.355</td>
<td>.255</td>
<td>.048</td>
<td>.106</td>
</tr>
<tr>
<td>IS2</td>
<td>.232</td>
<td>.779</td>
<td>.165</td>
<td>.183</td>
<td>.026</td>
<td>.154</td>
</tr>
</tbody>
</table>
Table 5. Construct correlations

<table>
<thead>
<tr>
<th></th>
<th>SCO</th>
<th>IS</th>
<th>DIC</th>
<th>LD</th>
<th>SC</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCO</td>
<td>.718</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IS</td>
<td>.401</td>
<td>.786</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIC</td>
<td>.392</td>
<td>.375</td>
<td>.814</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>.446</td>
<td>.354</td>
<td>.629</td>
<td>.782</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>.448</td>
<td>.111</td>
<td>.335</td>
<td>.672</td>
<td>.778</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>.309</td>
<td>.162</td>
<td>.143</td>
<td>.284</td>
<td>.441</td>
<td>.830</td>
</tr>
</tbody>
</table>

4.4. Addiction Measures Results

In our study, the addiction is treated as a general conception with four dimensions adapted from Davis [5], and one main research purpose is to find out the relationships among various microblogging usages and specific addiction types, which means that the users’ overall addicted status is not necessarily measured. Thereupon, instead of having self-diagnostic questions in our survey, the addiction is represented and measured by four discrete constructs. The detailed results listed in Table 6 show that the sample exhibits significant diversities in means and standard deviations of the addiction measurements, indicating that the participants in our survey are at different levels of the four addiction dimensions.

Table 6. Addiction item statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Item</th>
<th>Item mean</th>
<th>StdDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIC</td>
<td>3.379</td>
<td>DIC1</td>
<td>4.222</td>
<td>1.561</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DIC2</td>
<td>4.061</td>
<td>1.675</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DIC3</td>
<td>3.465</td>
<td>1.513</td>
</tr>
<tr>
<td>LD</td>
<td>3.119</td>
<td>LD1</td>
<td>3.242</td>
<td>1.531</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD2</td>
<td>3.081</td>
<td>1.600</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD3</td>
<td>3.768</td>
<td>1.469</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD4</td>
<td>2.384</td>
<td>1.308</td>
</tr>
<tr>
<td>SC</td>
<td>2.626</td>
<td>SC1</td>
<td>2.818</td>
<td>1.351</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SC2</td>
<td>2.394</td>
<td>1.229</td>
</tr>
</tbody>
</table>

4.5. Testing results

Figure 3 shows the results of the tested structural model with the coefficient of determination (R Square) for the endogenous latent variables and the estimated path coefficients.

The path significances being marked in figure 3, indicate that the hypotheses about SC (H1a-H1d) are all supported. That is, in the context of microblogging, the usage for social communication positively influences all four dimensions of addiction. On the other hand, information sharing does not have significant effects on social comfort or distraction, in other words, H2c and H2d are not supported. Jointly, social communication and information sharing explain 20.7% of the variance in diminished impulse control, and the R2 for loneliness/depression is 0.235. Due to the hypotheses not being supported, without information sharing, social communication alone accounts for 20.7% and 9.7% of the variance in social comfort and distraction respectively.

These results show that: 1) Usage will induce addiction, while not all types of usage will induce addiction; 2) Usage for social communication has higher possibility to cause addiction, as compared to information sharing; 3) Addiction would emerge, but not necessarily grow along all dimensions synchronously; 4) In the context of microblogging, the
distraction embodies the lowest level of addiction among four dimensions.

5. Discussion and conclusion

Considering the microblogging’s popularity and addictive attributes, as well as few published research on the reason of its addiction, the objective of this study is to investigate the relationship between microblogging usage and addiction by proposing the conceptual and empirically tested models. The results show the detailed effects of various usage motivations on each addiction dimensions, offering an alternative view to the issue.

5.1. Theoretical and practical implications

In summary, this study offers several contributions to future research. Firstly, this study is one of the very first studies on microblogging addiction. Users of microblogging could get responses widely and timely on Internet, enlarging their enthusiasm in deep engagement, namely, microblogging has potentially addictive attributes comparing to other Internet technologies. Secondly, this study regards addiction as the negative psychological status through Internet usage. Prior research identified many symptoms, items, scales, and characters to illustrate addiction, without telling whether the addiction is a psychological status or behavior appearance. Such confusion brings difficulties in finding the reasons and outcomes of addiction. Thirdly, we regard the Internet addiction as a result of cumulated Internet usage, concluding the whole process and relationship in a conceptual model. Lastly, this study measures the addiction in dimensions separately, obtaining substantial results, unlike most prior research models, which treat the addiction as a whole construct even though the measurement items cover all dimensions.

The findings of the research may help achieve balanced use of microblogging. On one hand, as a social networking application, microblogging attracts users to make social communication on it, resulting in higher possibility of addiction. From a society’s perspective, methods for meeting the needs of social communication in offline ways should be strengthened, such as investing in more sports and entertainment centers. Though users can have communications anytime anywhere through microblogging, the face to face communications can bring more true and rich experiences to users. On the other hand, being a social media, microblogging is an information sharing platform for users with lower potentiality in addiction. Moreover, the resource and knowledge shared in microblogging may benefit the work performance of users, which indicates low possibility to get distracted from duties. From the school’s or company’s point of view, microblogging can be applied as the learning and cooperating tools.

Additionally, services providers may be interested in increasing users’ involvement to some extent for better revenues. Comparing to other applications, users may get more positive benefits from microblogging usage. Our research suggests that the providers: 1) emphasize microblogging as information and knowledge community, promoting its popularity at the organization level; 2) combine online and offline approaches to enrich communication experiences on microblogging, attracting more individual users without significantly increasing their potentiality to get addicted.

5.2 Limitation and Future Work

One main limitation is that this model explains the variance in distraction (one dimension of addiction) insufficiently, indicating there may be some other reasons for it or maybe the distraction is not obvious in the context of microblogging. Another limitation is about the relatively small sample size, which decreases the model’s validity to some extent.

It is also worth noting that our model has only been tested in the context of China, which may be significantly different from other countries. As we have observed to some extent, Chinese users are generally similar to their counterparts in western countries with regard to microblogging, while they might be more likely to intensively use such applications at the undergraduate stage, as tight parent-control might have strongly constrained their anxiety to use the Internet before they go to college. However, due to limited work in cross-country comparison, this argument is still tentative and deserves further investigation.

With time limitation, no foreign participants were invited to the survey, resulting in no sufficient discussions on the difference between Chinese users and other countries. In future, more research can be done to figure out other usage motivations or types, and studies can be carried out on the basis of more diverse samples.

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7. References


