# Stay or Leave? An Investigation on User Exodus in Social Networking Sites

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**Abstract**
Although many SNSs experienced great popularity in the past few years, it is also worth noting that most of them were confronted with massive and abrupt recession in a short period of time. In this study, we define the user exodus as a large scale movement in and out of the social media market, and it can be viewed as a decision or response in the post-adoption stage of IT artifact. So far, there is no currently agreed model for user exodus behavior. Thus, this research-in-progress study aims to qualitatively investigate the underlying reasons of user exodus by examining Kaixin001, a Chinese SNS product. Ethnography decision tree model (EDTM) will be built to elicit the attributes and laddering technique will be used to establish the connections between various attributes, consequences, and the values following means-end chain (MEC) theory. Preliminary findings from content analysis are presented.

## 1 Introduction

In recent years, more and more people begin to experience fantastic and vivid social lives by combining online and offline activities. Social networking sites (SNS) as one of the most popular social media has been flourishing since 2007, and some SNSs such as Facebook and Friendster are so influential and widespread. In China, there are also many widely used SNSs, such as Renren and Kaixin001, and the number of SNSs has reached around 900 in March, 2010 (Xinhuanet 2013). However, the flourishing tendency did not last long, and many SNSs suddenly closed in the second half of 2010. For example, Google ceased the Google Wave project in the end of 2010 for the unsatisfactory usage rate. Myspace also experienced a bitter user loss from 2010 to 2011. In China, the number of active users in Kaixin001 declined by 65% in 2011, compared with that in 2010 (Alexa 2011). As the core resources of SNSs, the amount of active users and their engagement are playing an extremely important role in the success and sustainability of today's SNSs. Although many SNSs experienced great popularity in the past few years, it is also worth noting that most of them were confronted with massive and abrupt recession in a short period of time. Consequently, a major concern for service provider of SNS is to promote user experience, contribution, and value through products and services such as can help establish a long-term, happy relationship with users.

Retaining customers is one of the most critical challenges in many traditional industries, especially in the telecommunications, mobile services, and banking, etc. (Wei and Chiu 2002; Richter et al. 2010; Xia and Jin 2008) Prior studies have advocated the importance of user churn prediction in both offline and online contexts. The design and implement of churn prediction mechanism facilitate the customer relationship management and lead to a high user satisfaction (Kim and Yoon 2004). However, despite the growing recognition of the benefits of churn prediction, little theoretical discussion and empirical studies have been devoted to investigating the underlying reasons why people may largely and apparently stop using the IT artifacts, especially in the SNS context. Attracting new users and retaining existing ones are critical to the success of SNS providers (Chang et al. 2013), and the heavy drop of users may indicate that the SNS are encountering some problem (Ganesh et al. 2000). In this study, we use the word "exodus" to represent the shocking usage drop and defection of massive users, and we define the user exodus as a large scale movement in and out of the social media market, which can be viewed as a decision or response in the post-adoption stage of IT artifact.

According to Herzberg's two-factor theory (Herzberg 1959; Maddox 1981), the reasons for use or stop using may not simply result from the same basket and often varies. User exodus decisions are influenced not only by the attributes of the SNS, but also by the intrinsic psychological and extrinsic social influence factors. Thus, it is interesting to explore why users stop using or abandon the SNSs in a more direct way. So far, there is no currently agreed model for user exodus behaviour. Thus, this research-in-progress study aims to qualitatively investigate the underlying reasons of user exodus by examining Kaixin001, a Chinese SNS product. Ethnography decision tree model (EDTM) will be built to elicit the attributes and laddering technique will be used to establish the connections between various attributes, consequences, and the values following means-end chain (MEC) theory. Hence, the RIP paper gains insight into this topic by answering the first research question:

Do absences of some features have negative impact on continual usage of SNSs and may lead to user exodus phenomenon? What are the specific means-end elements of user exodus in Kaixin001?

## 2    Brief Literature Review

Previous studies for user exodus mainly focus on user churn prediction, resulting in a broad array of literature on telecommunications (Wei and Chiu 2002; Xia and Jin 2008), Yahoo! Answers (Dror et al. 2012), online gambling industry (Coussement and Koen 2013), and mobile networks (Richter et al. 2010). Specifically, the factors of user churn prediction are based on some feature-based approaches, such as demographic factors, previous activity, and average activity, and achieve a pretty good accuracy rate in recent years (Hadden et al. 2007). However, their overarching objectives mainly concentrate on predicting and early warning rather than explanation and troubleshooting (Neslin et al. 2006; Verbraken et al. 2014).

Marketing scholars understandably have paid great attention to consumer exodus behaviours from a relationship marketing perspective (e.g., Antón et al. 2007; Bansal et al. 2005; Liang et al. 2013). However, the determinants of user exodus from those paid services are to some extent connected with pricing or service contract expiry, which might not be appropriate in SNS context (in most cases, SNS services are free for their basic function use). As mentioned above, besides the service discontinuance, another typical kind of user exodus is user switching behaviour. As early as the mid-1990s, many marketing scholars have paid substantial attention to consumer switching behaviours in different industries (Hsieh et al. 2012). For example, Keaveney (1995) identified eight general categories of customers' reasons for switching in service industries by using the critical incident method. In line with the growing prevalence of online services activities, the number of studies on switching behaviour of IT/IS increases in recent years (Chang et al. 2013; Cheng et al. 2009; Nimako and Benjamin 2013; Ye and Potter 2007).

In this study, user exodus in SNS context is viewed as a complicated phenomenon with rich behaviours, including discontinued usage of SNS, switching from SNS to other social media products/services (e.g., user may follow the trend to switch from SNS to WeChat, a popular mobile instant messaging), or switching from one brand of SNS to another, etc. However, so far there are few, if any, overall theoretical framework to guide the researchers' choice of constructs and hypotheses relevant for user exodus studies in SNSs context.

## 3    Research Design

### 3.1    **Research Method**

Laddering technique was developed by Olson and Reynolds (1983) as a way to model the concepts and beliefs of people. According to the definition, Laddering refers to a semi-structured in-depth, one-to-one interviewing technique used to develop an understanding of how consumers translate the attributes of products into meaningful associations with respect to themselves (Reynolds and Gutman 1988). In general, the laddering procedure involves two steps: eliciting relevant attributes and building the ladders.

EDTM is a research method designed to explore the factors that groups of people use in their decision making (Gladwin 1989). The focus of EDTM is the development and verification of a formal model of choice for a specific decision task (Beck 2005). The results of EDTM can be illustrated as decision trees (Gladwin 1989), as decision tables (Mathews and Hill 1990), or as set of "if-then" decision rules (Ryan and Martinez 1996).  The relevant attributes and factors can be derived from qualitative ethnographic interview methods. Each decision criterion may be viewed as a hypothesis, which has a causal relation

and could be quantitatively verified through model testing. In this study, we will employ the EDTM to eliciting the respondents' negative attitudes and feelings towards the SNS, and thus identify the relevant attributes, consequences, and values. We believe that there is a logical linkage between EDTM and laddering technique from a methodology perspective, since both methods assume that people are able to access their decision process and report the criteria that influenced their choice. Furthermore, EDTM may provide a more normative guideline for improving the procedure of laddering technique, especially in eliciting the attributes of various ladders. Therefore, in this study we attempt to combine these two methods before and during our interview.

### 3.2    Research Object and Sampling

In this paper, we select Kaixin001, a very famous SNS in China, as our research object for the empirical investigation. Kaixin001 was known as one of the most popular SNSs and had substantial registered users in the past. In 2009, the registered users of Kaixin001 reached to 100 million, and nearly 50 million users had an active login history per month in that golden year. According to the statistic of Alexa, Kainxin001 ranked as the 18th influential web sites in China in 2010. However, good times don't last long, the number of active users in Kaixin001 declined precipitously from 120 million (in the mid of 2010) to 42 million (in the mid of 2011). According to the website health check index from Baidu, the user attention of Kaixin001 also experienced a sharp recession from 800,000 in 2012 to 50,000 in 2013. These shocking figures depict that Kaixin001 suffered a severe user exodus in the past several years. Therefore, this study takes Kaixin001 as an example to investigate the user exodus phenomenon in SNS context and its underlying reasons and factors.

As a general rule of thumb, it has been suggested that a minimum of 20 respondents should be included in a laddering interview (Reynolds and Gutman 1988). In addition, EDTM is also built from interviews with a relatively small number of people (20-60) and are usually tested on a similarly small and local sample (Ryan and Bernard 2006). Thus, in this study, 55 informants were interviewed, and 48 valid interviews out of 55 were considered for further analysis. The key criterion for recruiting interviewees was that they had to own an account for Kaixin001. The research subjects are those who had active usage experience in Kaixin001 yet stopping using for more than one year. To recruit the subjects for interviews, announcements and open call were posted on the Zhubajie (a popular crowdsourcing website) and WeChat.

### 3.3    Data Collection

Regarding the data collection, an interview protocol was designed and used to ensure the consistency and validity of the answers across the cases (Myers and Newman 2007). Thus, we employ the EDTM to building the interview process, which can elicit the related attributes for the later laddering analysis. The form of guided interviews was chosen to give respondents the maximum freedom to talk about the topic and their concerns in an open way, rather than imposing the opinion of the researcher or pre-defined categories on them (Beck 2005). In the laddering process, respondents are encouraged by means of repetitive and interactive questions, to dig deeply into the discussion about attributes, gradually indicating consequences and values (Veludo-de-Oliveira et al., 2006). Therefore, in this study, a set of 14 related questions was developed to elicit a detailed description and understanding of respondents' decision making in Kaixin001. Among them, some questions were set up to elicit the decision criteria that participants use in their decision process. Eliciting decision criteria is the most critical step in building the EDTM model. As illustrated in appendix, P3, P4, P5, P7, P8, P10, P11 and P13 are the key questions in our interview, and each question will follow a "why" to dig into the discussion. At the beginning of the interview, respondents were invited to reflect on and stated a particular experience in which the decision was made, and some transitional questions, such as P2, P6, P9 and P12, were used to drive the discussion in a sequential way. After eliciting the decision criteria, we develop the decision tree to map the flow and relationship between decision criteria. Each individual decision tree is a sequence of explicit statements (or hypotheses) about the conditions leading to the selection of each alternative outcome. Each yes/no choice is passed or satisfied along a path to the particular choice (Beck 2005). Interviewees were ensured that their responses would remain confidential and that they could discontinue the interview at any time. The interviews were tape-recorded and transcribed.

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## Appendix (Main body of interview protocol)