In this doctoral dissertation, I study on user behavior for assessing symptoms of excessive Social Network Site (SNS) usage.

With the emergence of SNSs, their usage has become a global consumer phenomenon. People are spending unexpected and unprecedented amount of time online. Such often excessive and compulsive use has been categorized as a behavioral addiction. Understanding how users behave on SNSs creates the opportunity for assessing the symptoms of excessive SNS usage to increase the awareness of excessive SNS usage. Therefore, I set my research goals as follows: designing and implementing a data collection application, clarifying the relationship between SNS usage and SNS addiction, identifying the effective factors associated with addiction components, and assessing symptoms of excessive SNS usage.

To achieve my first research goal, I design and implement the data collection application as a tool for aggregating SNS usage data from questionnaire and SNSs. Modified Internet Addiction Test (IAT) and Bergen Facebook Addiction Scale (BFAS) were employed as a part of questionnaire to measure SNS addiction and reflect addiction components. APIs were used for directly retrieving data from SNSs.

To achieve my second research goal, the data obtained by the data collection application including web log data were statistically analyzed to find the effective factors associated with SNS. The analytic results indicated the candidate of effective factors that differentiate excessive from normal users.

To achieve my third research goal, I identified the effective factors associated with addiction components. I recruited additional participants and statistically
analyzed their questionnaire and Facebook data to clarify the factors associated with addiction components, which are reflected by the question items of IAT and BFAS. The analytic results indicated the candidate of effective factors associated with each addiction component. Nevertheless, the effective factors were different for each addiction component, some were shared, and common effective factors were associated with both IAT and BFAS addiction components.

To achieve my last research goal, I proposed a new method used for assessing symptoms of excessive SNS usage. This new method is the combinations of the data collection application used for aggregating SNS usage data and the analysis methods used for identifying the effective factors associated with SNS addiction and those associated addiction components.

The method used for assessing the symptoms can be applied for developing appropriate prevention strategies for individual to increase the awareness of excessive SNS usage.