Koichi Higuchi (Osaka University) & Kawabata Akira (Osaka University)

Japanese Second Thoughts on IT: Analyzing Open-Ended Questions

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Main body of the abstract:

Today, Internet use is spreading very rapidly and the Internet is often featured in the mass media. It is certain that people are using and talking about the Internet more and more frequently. The purpose of this study is to use an exploratory analysis of open-ended questions in order to figure out what and how Japanese people think about the Internet and IT: Information Technology.

The data were responses to an open-ended question in JIS2001: the Japan survey on Information Society. The target population of this survey was Japanese men and women aged 20 to 89. We used a multi-stage stratified random method to acquire a sample that represents the whole territory of Japan. The original sample size was 1,500 and the completion rate was 67.4%, yielding 1,011 respondents. And the data were analyzed in both a quantitative and an exploratory manner with the help of statistics and computers. You could therefore say that we applied a kind of Content Analysis or Text Mining to the Japanese language data.

At first, the authors tried to summarize the data without imposing interference of their own prejudice by following procedure. The computer was used to extract words from the data automatically. Then, a SOM: Self-Organizing Map was used to visualize relationships or similarities between those words. As a result, it was found that the answers could be classified roughly into (i) positive evaluations or hopes for its convenience, (ii) fears of crimes or troubles, and (iii) general impressions about changing society and economy.

After the summary of the data was obtained, the responses were coded for closer quantitative analysis. We use the term "coding" to refer to the creation of dummy variables that describe whether or not responses mention a particular theme or concept. From the analysis using the coding results, we found that when people think about the Internet, positive evaluations or thoughts of its convenience are often foremost in their minds. After that -on second thought- fears of crimes or troubles tend to come to mind.

Thus the authors argue that responses to open-ended questions require greater effort than responses to normal survey questions. Only by creating such onerous conditions for the respondents could we discover their second thoughts. It is likely that a careless survey concerning the Internet would run the risk of overlooking such second thoughts. In the full paper, we will also analyze the same open-ended question in JIS2004 and report whether there will be any differences between 2001 and 2004.