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Mobile Internet Use in Japan: Text-Message Dependency and Social Relationships

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INTRODUCTION

In this chapter, mobile Internet use is defined as using mobile phones to connect with the Internet. Mobile Internet use includes website viewing (e.g., social networking site) and mobile text messaging which includes e-mailing or texting via mobile phones. Text-message dependency is the tendency to use text messaging in dyadic communications while avoiding direct communication such as mobile-voice phone use.

Overview

Since the 1990s when Japan started to enjoy advanced mobile Internet use, many researchers including psychologists, sociologists and anthropologists, studied the mobile (*keitai*) Internet use in Japan where high text-message dependency is commonly observed, especially among young people. Japanese text-message dependency has been studied from different perspectives. (1) Determinants of mobile Internet use include younger age, while effects of socio-economic factors are not as strong when compared with PC-based Internet. (2) Cross-cultural studies reveal how Japanese mobile phone behavior is more dependent on mobile text messages than in other countries. (3) Mobile Internet and PC-based Internet are differently used in terms of users' motivations. (4) Some researchers tested the "selective interpersonal relationship" hypothesis (Matsuda, 2000), while others assessed how text-messaging affects social networks, especially among young people.

Current Scientific Knowledge in Mobile Internet Use in Japan

Misa Matsuda published influential books (both in Japanese and English) on mobile phone use in Japan (See Additional Reading). She has engaged in the study of mobile communications since the age of pagers in the early 1990s, using mostly qualitative and some quantitative methods. Tasuku Igarashi has studied how use of mobile text messages is associated with social networks based on student surveys. Tetsuro Kobayashi has studied how social network characteristics (e.g., heterogeneity and homogeneity) and social tolerance are associated with mobile and PC-based Internet use. Kenichi Ishii has studied the determinants of mobile and PC-based Internets using nationally representative survey data.

ADOPTION OF MOBILE INTERNET USE

Since the late 1990s, Japan has enjoyed the highest penetration rate of mobile Internet use in the world. One historical reason for the high penetration rate of mobile Internet in Japan is the adoption of "i-mode," NTT DoCoMo's Web Access Protocol (Ishii, 2004). Following the success of i-mode and other mobile Internet services, major Japanese mobile phone carriers started 3G (third-generation) mobile phone services. In comparison with other countries with regard to the 3G ratio (97.2% in 2010) and the mobile Internet penetra-

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tion ratio (89.5%, in 2010), Japan was ahead of the others in 2012 (Ministry of Information and Internal Affairs and Communication, Japan, 2012). With advanced mobile technologies, mobile phones are used more widely in Japan compared to ten years ago. Table 2 compares communication methods for close friends between 2001 and 2011 based on Mobile Phone Use Surveys which were conducted in 2011 and 2001 in Japan (Matsuda, Dobashi, & Tsuji, 2014). Respondents were chosen from a two-stage stratified random sample and the number of successful respondents was 1,452 in 2011 and 1,878 in 2001. In these surveys, respondents were asked what methods they used for communicating with each of five closest friends except for family members who live together. Table 2 shows pooled results for these five closest friends. It indicates that usage rates of mobile text messages have doubled in the last ten years, while their counterpart of fixed phones has fallen to one-third. According to the above survey, 91.5% of the respondents owned mobile phones (Matsuda et al., 2014). Of the mobile phone owners, 89.0% used mobile Internet in Japan; 88.2% of them used mobile text messaging and 52.4% used other Internet services. In Japan, PC-based Internet is not as popular as mobile Internet. 58.7% of the respondents used PC-based Internet while more respondents (81.4%) used mobile Internet.

Assessing determinants is an important first step for understanding mobile Internet use. Of the demographic factors, age is the most important determinant; younger people, especially teens, most often use mobile phones to access the Internet (Table 1), while older people are more likely to use PC-based Internet (Ishii, 2009). Unlike PC-based Internet, females are more likely to adopt the mobile Internet. Job status, income level, and region are not significantly correlated with mobile Internet use (Ishii, 2008). Older people are more likely to use mobile voice-phone, while younger and female respondents are more likely to use mobile text messages (Ishii, 2009; Ishii, 2014a). Table 1 indicates that mobile Internet users are more likely to use PC-based Internet than non-mobile Internet users. Females and younger people are more likely to use mobile Internet. In this sense, the digital divide is smaller in the

Table 1. Descriptive statistics of mobile Internet and mobile text messaging

		N	Mobile Internet Users (%)	Mobile Text Messages (Frequency per Week)
Total		1452	81.4%	18.5
PC Internet	Users	853	90.7%	23.2
	Non-users	599	68.1%	11.7
	Statistical test		Chi-square=119.0 ***	F=24.1***
Gender	Male	717	77.4%	15.2
	Female	735	85.3%	21.7
	Statistical test		Chi-square=15.0 ***	F=7.7**
Age	10's	172	70.9%	47.2
	20's	164	97.6%	35.3
	30's	227	99.1%	19.2
	40's	277	94.9%	17.0
	50's	269	81.0%	9.5
	60 or Over 60	343	56.6%	3.8
	Statistical test		Chi-square=261.3 ***	F=32.1***

N=1452. Source: Mobile Phone Use Survey 2011