The Emergence of Context: A Survey of MobileNet User Behavior

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The Mobile Internet (MobileNet) is receiving increasing attention, being hailed by many as a new marketing platform that offers "mouth-watering opportunities," because the devices are always on, always available, inseparably connected to an individual user, and the location of these devices (and, thus, the individual users) can be tracked. "Location-based marketing" proponents see this constant knowledge of an individual consumer's location in time and space as key to establishing one-to-one customer relationships. To investigate how the context of MobileNet usage affects consumer behavior, and specifically whether time and location are significant differentiators of MobileNet usage, we conducted a broad survey of Japanese MobileNet users. Survey results suggest that the central role in MobileNet usage that many are attributing to time and location is vastly overstated. While interactions of usage rate, content choice and payment with location and time of day are generally statistically significant, it is difficult to find meaningful patterns in the data that could lead to actionable results. What users liked best about their mobile phone showed far more promise for defining mobile consumer behavior than time and location. We suggest that psychological drivers will prove to be much more important than time and location in the quest to understand and accurately model MobileNet consumer behavior.

INTRODUCTION

Various authors have claimed the Mobile Internet (MobileNet) has enormous potential for building deeper customer relationships and driving revenue growth. They praise the mobile platform's inherent functionality in enabling businesses to sense and respond to the location and time of day of individual user interactions. However, today's business leaders, especially those in the telecommunications market, are struggling to determine those services and applications that will allow them to recoup the exorbitant prices paid to license the next-generation radio spectrum and develop the supporting infrastructure.

> The function of the handsets will improve for sure, but the important part is how to use them. The main feature of 3G phones is the high-speed data communication and video transmission. The question is how to utilize this feature. - Keiji Tachikawa, President, NTT DoCoMo Inc., October 2002 (Matsumoto 2002)

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Despite the need to understand how to utilize the exponentially expanding capabilities of the MobileNet, there is a dearth of research on consumer behavior in the specific context of the MobileNet. A few recent studies have looked at the impact of mobile technologies and devices on consumer behavior (Isaacs, Walendowski and Ranganathan 2002; Schlosser 2002; Vincent 2003), but their focus is on the interaction between an individual user and his or her wireless device as a whole, not specifically the MobileNet. For example, Vincent concludes that mobile devices enhance existing social relationships instead of helping to establish more of them, that mobile users create closer emotional ties to their mobile devices than other computing devices and that privacy concerns are of tantamount importance to inbound and outbound marketing efforts. Schlosser, looking beyond the mobile phone to messaging terminals, specifically Research in Motion's (RIM) Blackberry and Clearnet's MIKE devices, also found specific social and psychological factors underlying the usage of such devices.

While the academic literature does not contain published research specific to MobileNet consumer behavior, there are reports and studies in the business press. For example, Kenny and Marshall (2000) report on "contextual marketing" and Bergeron (2001) describes interacting with customers "just in time, just in place." These and other authors (Advani and Choudhury 2001; Godell et al. 2002) suggest that the power of the emerging MobileNet for sales (mCommerce), advertising, customer relationship

management, branding and a host of other marketing applications lies in the fact that the MobileNet is always on, always available, and inseparably connected to the individual user.

> The appeal of the mobile phones to advertisers is obvious: they are personal devices, they spend all day with their owners, and their whereabouts are known. Proponents of location-based marketing see all sorts of mouth-watering opportunities. *(Standage 2001, p. 12)*

The context in which MobileNet access occurs is thought by many analysts to be a prime differentiating factor in usage. Their definition of context, however, tends to focus almost exclusively on time and place. As our results will show, a much richer context that integrates time and place with the individual's psychological and motivational needs is necessary to effectively understand MobileNet usage behavior.

Currently, the time and place aspects of MobileNet usage can be tracked with great detail, and systems are being developed to move beyond tracking to interactively managing customer relationships.

> In short, if you have a mobile phone, the network operator knows who you are, where you are, and can direct you to the portal of its choice, and can charge you money. This is a very different world from that of the fixed Internet. *(Standage 2002, p.9)*

> But these tasks pale in comparison to managing a pervasive electronic presence that senses and responds not only to who the customer is but where she is and what she's doing. *(Kenny and Marshall 2000, p. 120)*

While articles in the business press seem to share a similar futuristic vision, what they are missing is the bridge or roadmap that explains how the possibilities arising from wireless technologies can be realized. The one common assertion that is offered by all of these authors, either explicitly or implicitly, is that location (the specific space an individual occupies) and time (the exact time of day) are the main factors affecting use of the MobileNet.

There is a vast amount of research that has been conducted on the impact of physical location on consumer behavior. According to Bennett and Bennett (1970), "all social interaction is affected by the physical container in which it occurs." Bitner (1992) looked at how individuals responded to changes in their physical surroundings. Sherry (1998) offers an excellent compilation of essays and reports focused on either physical or digital environments, and their impact on individual human beings. This general research stream examines people's responses to specific locations. While it does not specifically deal with how specific locations impact consumers' choice of MobileNet content or services, there are parallel concepts that may apply in both arenas. For example, Mehrabian and Russell (1974) describe "avoidance behavior," the desire to physically escape from an undesirable location, and its opposite, "approach behavior." Nevertheless, the location literature does not provide a sufficient foundation for modeling consumer behavior on the MobileNet.

Time has also been investigated in relation to consumer behavior. Leclerc, Schmitt and Dubé (1995) and Gibbs (1998) explore how time is viewed through the eyes of consumers, and how it impacts decisions and behaviors. This research, however, defines time in a broad, abstract sense. It does not explore how specific times of day relate to differences in consumer behavior.

The lack of research specifically focused on consumer behavior on the MobileNet is not very surprising, due to the fact that the MobileNet is being adopted quite slowly in most of the world's markets. Japan's population of 127.44 million (109.35 million age 15 and over), however, supports 74.37 million phone subscriptions and 60.95 million MobileNet subscriptions.[1] For those age 15 and over, this translates into a mobile phone penetration rate of 68.0 percent and a MobileNet penetration rate of 55.7 percent. While there are certainly users with more than one subscription, the multiple subscription rate must exceed 10 percent before MobileNet penetration drops below 50 percent. We take advantage of this broad adoption and the relative market maturity it implies to investigate the role of time and location in MobileNet use. If time and location are as important as popularly touted, one should be able to see clear differences in the amount of usage and content access depending on time of day and the consumer's general or specific location.

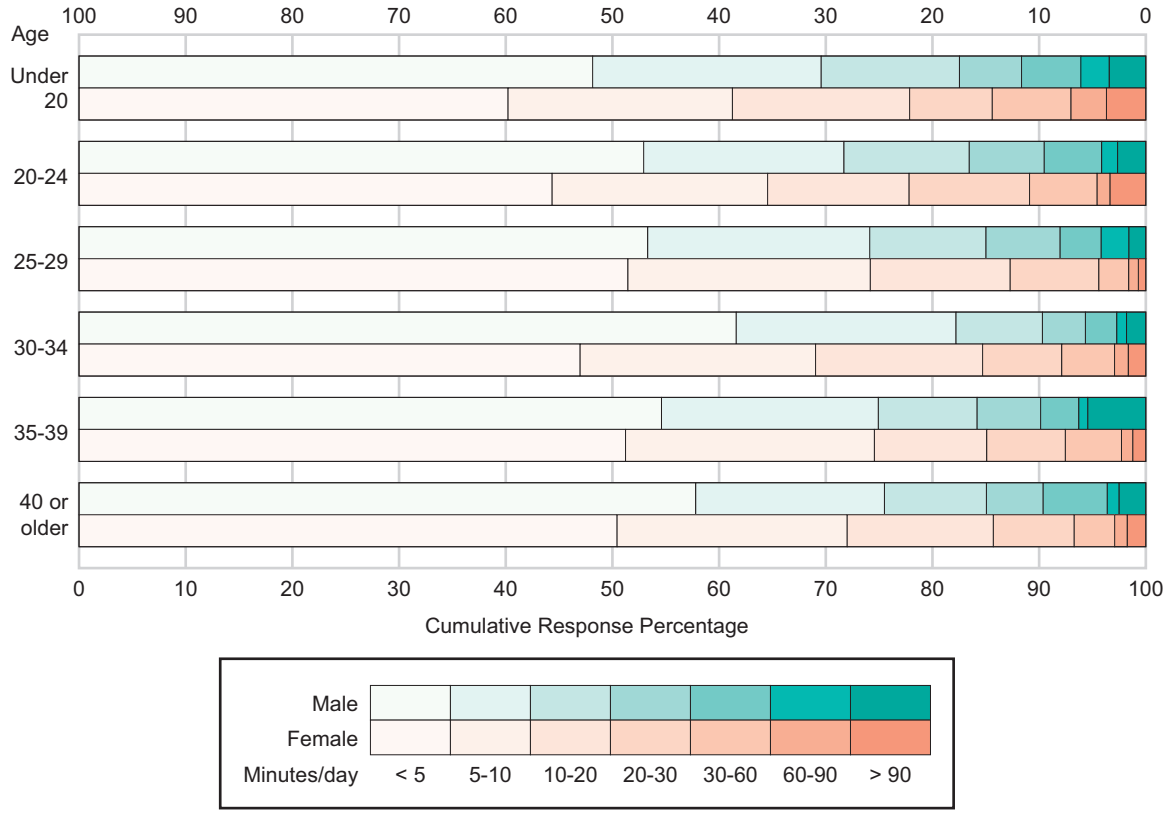
SURVEY METHODOLOGY AND RESPONSE

We developed a survey to investigate the questions raised above regarding the impact of time and location on MobileNet use. Four different versions of the survey were developed for four meta-locations: home, work / school, commute, and leisure time locations away from home, work or school. Each version of the survey had 17 questions, with all surveys including a group of 13 questions regarding general usage of the MobileNet and four location-specific questions. Demographic information was provided by the company that administered the survey based on respondent identification.

The survey was administered by iShare, Inc., a subsidiary of Kikakuya.com, a provider of anonymous email services in Japan. iShare distributed the survey by email in October 2002. Each of iShare's 250,000 users received one of the four versions of the survey, with the version being

[1]Population statistics as of 1 October 2002 (Statistics Bureau 2003). Phone and MobileNet subscriptions as of 28 February 2003 (Telecommunications Carriers Association 2003).

FIGURE 1
Daily MobileNet Uage (Minutes)



randomly assigned. The survey generated 13,892 usable responses, a 5.6 percent response rate, with response rates for the four survey versions being very similar.

Respondents were mostly male (71.6 percent) and young (83.3 percent less than 40 years old, 39.4 percent less than 30 years old). About a quarter of the respondents were not employed (see Table A1). The demographic profile of respondents matches the iShare population well, but iShare's membership is not perfectly representative of the Japanese population of MobileNet users. In our results, the percentage of men is higher than the approximately 60 percent male MobileNet usage that appears in various published reports.[2] The age distribution of respondents is also somewhat too heavy in the 30 to 39 range and too light in the 40 and older range.[3] Therefore, one should keep in mind that the sample is not altogether representative when interpreting overall survey results.

[2]Lai-Hung (2001) states, "... over 60 percent of all (MobileNet) users are male." Moon (2002), based on NTT DoCoMo records, gives the proportion of male i-mode subscribers in December 2001 as 58 percent. Demographics for DoCoMo's i-mode are reasonably good market indicators, as Telecommunications Carriers Association (2003) reports i-mode had a 60.6 percent share of the Japanese MobileNet market as of 28 February 2003.

[3]Masaki Kinoshita of NTT DoCoMo, in a May 2002 presentation (Kinoshita 2002) gave the distribution of I-mode subscribers as of the end of November 2001 as 4 percent under age 20, 34 percent age 20 to 29, 23 percent age 30-39, 38 percent age 40 or older, and 1 percent unknown.

OVERALL USAGE RESULTS

Minutes Per Day

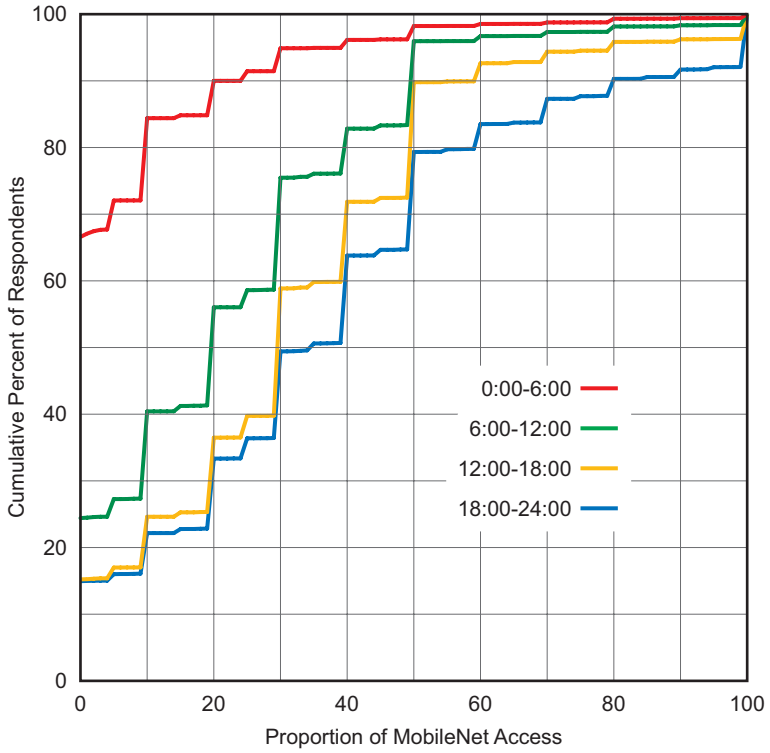
As mentioned above, MobileNet penetration in Japan is quite high. Nevertheless, usage is relatively low for most users (see Table A8). In fact, 53.9 percent of respondents use the MobileNet for less than five minutes per day. Only 14.7 percent use the MobileNet for more than 20 minutes a day. Figure 1 shows MobileNet usage by gender and age. Comparing usage by gender, there is a proportionately higher number of men in the very heavy (over 60 minutes per day). This is more than offset, however, by and even larger male skew in the lightest usage group (under 5 minutes per day), where we find 56.1 percent of male respondents and 48.3 percent of female respondents. Women have relatively higher representation in every usage rate from 5 to 60 minutes per day. The differences, however, tend not to be large. There is no generalizable pattern of usage differences by age group (see Table A13), and the correlation of age and usage is not statistically significant.[4]

Time of Day

Dividing their usage between four "day-parts"

[4]Correlation is used here for expository simplicity, despite the fact that usage per day data were collected as a categorical variable. Midpoints of each category range are used for the correlations, with 120 minutes used for the "over 90 minutes" category.

FIGURE 2
Cumulative Distributions of Day-Part Usage Proportions



(0:00-6:00, 6:00-12:00, 12:00-18:00, 18:00-24:00) respondents show a clear pattern of increasing usage from late night / early morning to evening. This is shown in Figure 2, where greater usage appears as a lower line on the graph (also see Table A6). A similar pattern is found by examining respondents' highest (or tied for highest) proportion day-part. Late night / early morning (0:00-6:00) is the maximum (or tied for maximum) day-part for only 7.9 percent of respondents. This rises to 26.8 percent for morning (6:00-12:00) and 43.6 percent for afternoon (12:00-18:00). Over half of respondents (54.8 percent), however, report that no day-part exceeds evening (18:00-24:00) in MobileNet usage.

Women have higher usage rates during the day (6:00-18:00) and men have higher usage at night (18:00-6:00). Once again, however, the differences are not large. The late night / early morning day-part shows a very clear pattern of decreasing relative usage with age. Afternoon shows a pattern of decreasing usage with age, but then spikes to its highest level at 40 and older. Usage in the evening is proportionately highest for those from 25 to 34 years old, with usage dropping off with age on either side.

Table 1 shows small but statistically significant correlations between age and day-part proportions. Generalizing from those figures, age has a positive correlation with proportion of daytime access (6:00-18:00) and negative with nighttime access (18:00-6:00).

TABLE 1
Correlation of Age with Day-Part[1] and Meta-Location Proportion[2]

Percent usage from:	Correlation	P-value
0:00-6:00	-0.1125	< .0001
6:00-12:00	0.0740	< .0001
12:00-18:00	0.0540	< .0001
18:00-24:00	-0.0405	.0001
Home	-0.0833	< .0001
Work/school	0.0485	< .0001
Commute	-0.0244	.0293
Leisure	0.0650	< .0001

[1]N = 8941.
[2]N = 8003.

Location

Respondents were asked where they access the MobileNet, with a broad division of usage time between four "meta-locations:" home, work / school, commute, and leisure time (away from home, work or school). Figure 3 shows the distribution of usage in the four meta-locations, with greater usage appearing as a lower line on the graph. The highest usage location is home (average usage share of 29.4 percent), followed closely by work / school (28.6 percent) (see Table A7). Analysis of the maximum (or tied for maximum) usage location for each respondent yields similar results, except that work / school slightly exceeds home. No other location exceeds work / school usage for 37.4 percent of respondents, while the percentage for home usage is 37.3. Commute usage (24.9) and leisure usage (23.9) percentages are also very close to each other.

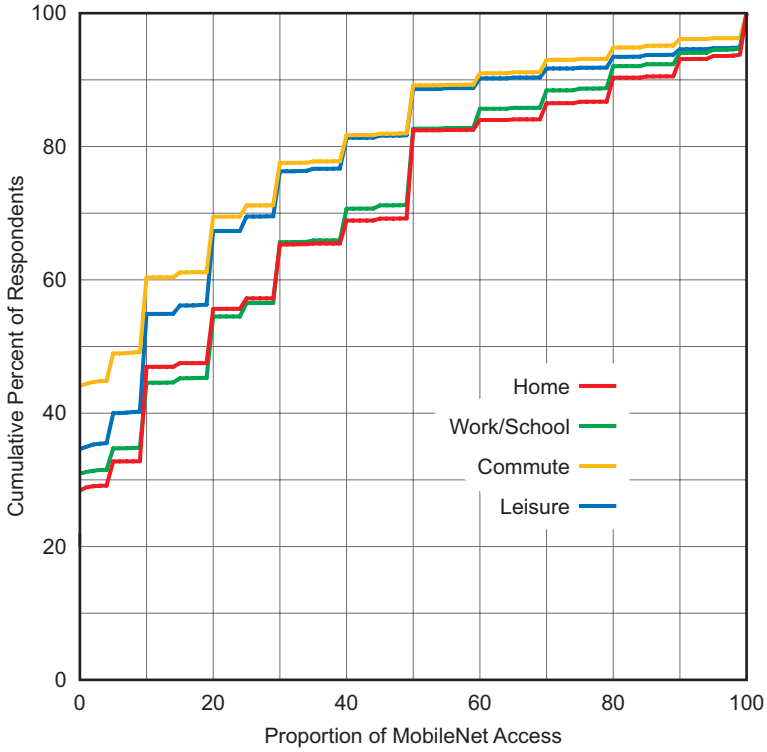
While overall usage (minutes per day) and the distribution of usage over day-parts were very similar for men and women, there are bigger gender differences in usage by location. Women have a much higher percentage of their access at home (women: 42.1 percent; men: 24.4 percent), while men have more of their access at work / school (women: 20.0 percent; men: 32.1 percent). Almost a third of men (32.8 percent) say they do not use the MobileNet at home, versus 17.4 percent of women. In fact, 10.7 percent of women say that home is the only place they access the MobileNet. A much larger proportion of women than men do not use the MobileNet at work (women: 43.6 percent; men: 25.9 percent). Men also show higher proportions of use during commute, although the numbers (women: 16.8 percent; men: 21.0 percent) are not as dramatic as those for home and work / school. Commute and leisure access are quite similar, although leisure usage shows less difference between men and women.

As seen in Table 1, the proportion of usage in home

locations and commute locations is negatively correlated with age, while work/school and leisure usage are positively correlated with age. These correlations, while statistically significant, are quite small. It is interesting to note that the percentage of those who do not access the MobileNet from home increases dramatically with age, from 17.7 percent of those under 20 to 35.3 percent of those 40 and older.

It is interesting that while mobile phones are commonly thought of as something used "on the go," the meta-locations with the highest usage, home and work/school, fit that image the least. Commute, which fits best, has the lowest usage. This is true for both men and women, and for all age groups, with the single exception that commute barely beats leisure locations for 20 to 24 year olds. There is further context, however, which can be added. The Japanese government reports time usage statistics for the Japanese population (Statistical Bureau 2003). Using these statistics, we were able to roughly divide people's activities into our four meta-location definitions. The results are shown in Table 2, revealing interesting similarities and differences with the MobileNet usage data. Over gender and age, the differences in time usage echo the differences in MobileNet usage. For example, men have much more time and MobileNet usage at work and women have much more at home. Time at home and MobileNet usage at home both increase with age, while time and usage at all other meta-locations generally drop as age increases. Thus, we see that the stereotypical "teenager on a train" scenario is not as representative of MobileNet usage as "woman in the living room" or "man at work."

FIGURE 3
Cumulative Distributions of Meta-Location Usage Proportions



While home being the leading MobileNet access point may be surprising, recent research on mobile games in France found,

> ... that contrary to popular belief, 50 per cent of mobile gamers play for an average of 22 minutes in each session and 75 per cent of mobile games players prefer to play at home, and more interestingly from Friday to Sunday between 17:00-22:00. Up until now it has widely been thought

TABLE 2
MobileNet Use and Time Use

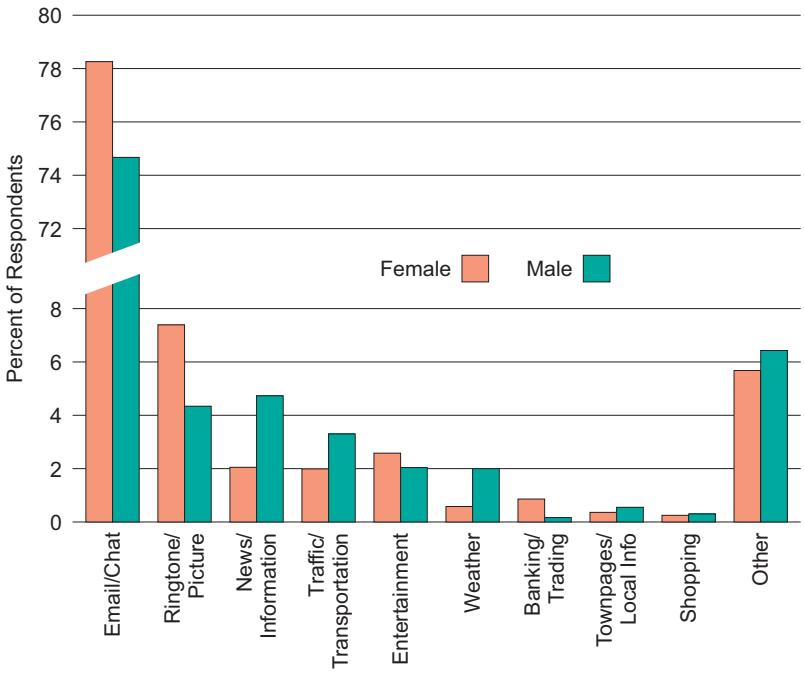
	MobileNet Use (%) Based on the survey[1]				Time Use (%) Based on Statistical Bureau (2003)			
	Home	Work/ School	Commute	Leisure	Home	Work/ School	Commute	Leisure
Overall	29.42	28.63	19.81	22.14	37.32	29.80	3.62	23.01
Gender								
Female	42.11	20.00	16.83	21.06	46.31	21.53	2.68	22.62
Male	24.36	32.06	21.00	22.57	27.45	38.65	4.57	23.48
Age								
Under 20	39.16	26.92	15.35	18.56	26.27	38.34	5.23	25.23
20-24	33.15	28.17	19.59	19.06	28.08	36.39	5.37	24.03
25-29	28.76	26.45	22.29	22.48	33.75	34.52	4.42	21.14
30-34	30.80	26.66	20.08	22.45	38.62	31.52	4.00	19.87
35-39	26.77	31.82	19.45	21.95	37.74	33.13	3.77	19.24
40 or older	25.02	32.44	17.45	25.10	41.87	25.06	2.72	23.62

[1]N = 8003.

that mobile games have been played for much shorter periods of time and whilst "on the move. " (IN-FUSIO 2002, p. 1)

The "mobile" nature of the MobileNet has two key aspects. The importance of the first, portability, is clear in the results above. Mobile devices travel with their owners, so they are used most where their owners spend the most time. The second key aspect, roaming capability, can also be seen in Table 2. The most dramatic difference in time use and MobileNet use is in the commute meta-location. While time spent commuting is relatively small (3 to 5 percent of waking hours), commute locations account for 15 to 22 percent of MobileNet usage. Thus, although in gross terms the portability of the MobileNet leads to home and work / school being the most common access locations, the MobileNet's roaming capability results in disproportionately high commute usage.

FIGURE 4
"Content I Access Most"



Content

Respondents overwhelmingly indicated that email / chat is their most heavily used content (75.7 percent) (see Table A2). Next was ringtone and picture (screen background) downloads with only 5.2 percent response. No other content category exceeded 4 percent. Respondents who choose "other" as their primary content were asked to describe their most accessed content. Typical answers were:

- Mostly mail.
- Look at home page and BBS only.
- Friends.
- Send ideas / complaints to companies.
- Keep in touch with friends (communicate).
- Short mail.
- Mobile phone mail only.
- PHS mobile phone only. (PHS does not have MobileNet capability.)
- GPS / photo upload.
- Train / subway station information and maps, i.e. quickest way to get to a train platform.
- I don't use the Mobile Internet.
- Classified ads.
- iAppli game sites. (i-mode's brand for Java applications.)

Figure 4 shows primary content type by gender. Many of the cells in the cross-tabulation differ markedly from their expected response. Expected response percent for a cross-tabulation cell is the product of the corresponding marginal distributions. In the case of primary content type and gender, for example, the expected cell percentage for women who primarily use email / chat is 28.5 (percent women)*75.7 (percent email / chat) = 21.6 percent. In the discussion that follows we highlight those with meaningful departures from expectations[5] (with numbers in parentheses representing the column percentage for the cell versus the column percentage for overall usage.) The results (see Table A9) clearly show that women are higher than expected primary users of email / chat (78.3 / 75.7) and ringtone / picture downloads (7.4 / 5.2). They also have higher than expected primary usage of entertainment content (2.6 / 2.2). All other categories (except shopping) have lower than expected primary usage among women. Men's results are the opposite, except that townpages and other content do not have meaningful differences from expectations.

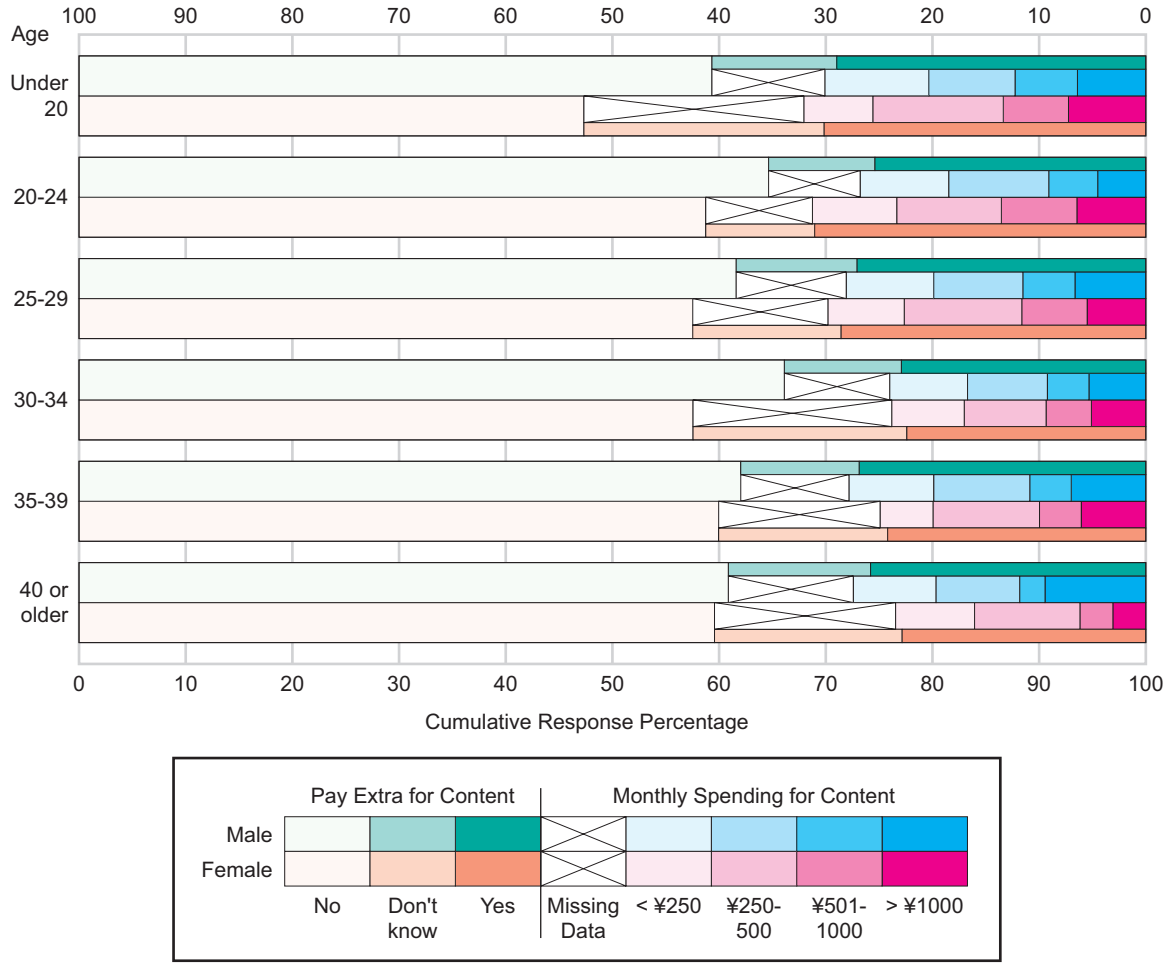
Primary content also has a statistically significant interaction with age (see Table A14), although there are very few clear patterns that emerge. Ringtone / picture downloads drop with age, from 14.1 percent listing this as their primary content in the younger than 20 group to only 3.0 percent for the 40 or older group. Users who are under 20 years old have lower primary access of email / chat (69.0 / 75.7). Banking / trading as primary content increases with age.

Paying Extra for Content

As seen in Figure 5, most respondents (61.4 percent) do not pay for content (also see Table A3). Paying extra for content has a statistically significant interaction with gender and age, but the patterns are

[5]Criteria for a "meaningful departure from expectation" are explained in the appendix.

FIGURE 5
Spending Extra for Content



not particularly strong (See Tables A10, A15). Paying extra for content becomes less common with age, with the amount paid increasing with age for men but having no clear pattern for women.

For those who pay for content, most spend little (61.0 percent spend no more than ¥500 per month) (see Table A4). Still, there is a sizable group (23.1 percent) that pay over ¥1000 per month. Men's spending patterns are more extreme, being higher than average at both the "less than ¥250 per month" level (30.5 / 29.1) and "over ¥1000 per month" level (24.3 / 23.2), but the differences are quite small (see Table A11). Women are the opposite, with higher than average spending in the ¥250-1000 per month range, with the differences from average being somewhat larger (¥250-500: 35.5 / 31.9; ¥501-1000: 18.7 / 15.9).

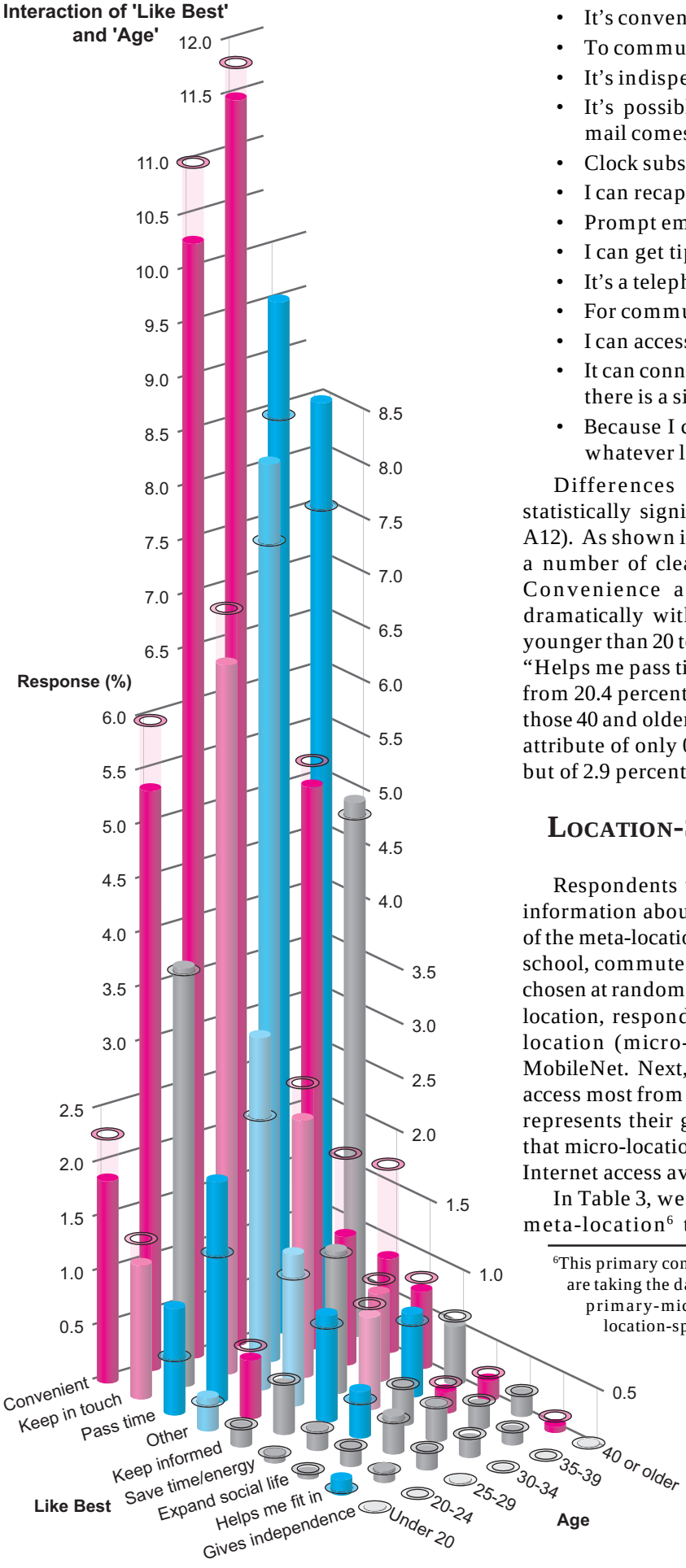
There are also some interesting differences in spending by age group (see Table A16). Although the lower spending levels show no clear pattern over age, spending of ¥501 to ¥1000 per month shows a clear pattern of decline with age. One cannot generalize that spending drops with age, however, as the proportion of those 40 and older who spend more than ¥1000 per month is higher than in any other age group.

Most Liked Attribute of the Mobile Phone

In response to the question of what they like most about their mobile phone, the most common answers were "Convenience" (46.9 percent), "It keeps me in touch" (30.0 percent) and "Helps me pass time" (10 percent) (see Table A5). No other response category exceeded 4 percent. Again, those who chose "other" were asked for an explanation. Typical answers included:

- I like the design (fashion).
- Can give a lot of information without worrying about the other person's situation - not like an answering machine, where I can only leave a little information.
- Nothing.
- Mail from friends.
- Easy to coordinate a meeting place with others.
- I don't like it.
- I can compose mail at any time.
- Quick communication.
- I don't have to be tied to a specific place.
- It's possible to move around.
- Because I don't have my own wireline

FIGURE 6
Interaction of 'Like Best' and 'Age'



telephone.

- It's convenient while I'm waiting.
- To communicate using only short mail.
- It's indispensable when I'm waiting.
- It's possible to immediately confirm when mail comes to my PC.
- Clock substitute.
- I can recapture lost time.
- Prompt email communication.
- I can get tips for where to go out.
- It's a telephone.
- For communication with my family.
- I can access information anywhere.
- It can connect to the Internet anywhere where there is a signal.
- Because I can use it at whatever time and in whatever location is convenient.

Differences in response by gender, while statistically significant, are quite small (see Table A12). As shown in Figure 6, differences by age show a number of clear patterns (also see Table A17). Convenience as the favorite attribute rises dramatically with age, from 38.6 percent of those younger than 20 to 53.1 percent of those 40 and older. "Helps me pass time" drops as the favorite attribute from 20.4 percent of those under 20 to 5.4 percent of those 40 and older. "Helps me fit in" was the favorite attribute of only 0.8 percent of respondents overall, but of 2.9 percent of those under 20.

LOCATION-SPECIFIC USAGE RESULTS

Respondents were asked to give more detailed information about their MobileNet usage from one of the meta-locations mentioned above (home, work / school, commute or leisure), with the meta-location chosen at random for each respondent. Given a meta-location, respondents were asked in what specific location (micro-location) they most access the MobileNet. Next, they were asked what content they access most from that micro-location, what day-part represents their greatest proportion of access from that micro-location, and whether they have alternate Internet access available in that micro-location.

In Table 3, we compare primary content for each meta-location[6] to primary content for overall

[6]This primary content is actually micro-location specific. We are taking the data somewhat out of context by substituting primary-micro-location-specific content for meta-location-specific primary content.

MobileNet access. Those differences between meta-location proportions and their corresponding overall proportions that are statistically significant[7] are shown in bold. We find that the locations where people spend the most time, home and work/school, have higher than average primary use of the content giant, email/chat. Ringtone/picture downloads at home are more common as primary content than they are overall, and are less common in all other meta-locations.

Primary use of news/information is especially light at home, as is traffic/transportation information. Not surprisingly, traffic/transportation information is more heavily accessed from commute and leisure locations. Entertainment content has heavier use at home and in leisure venues. This is not surprising, but one might have expected it to also be high during commute time or to be low during work hours, which is not the case. Banking is especially light at home. This may not be unexpected for trading if time at home corresponds with times when markets are closed, but one would not expect banking functions to be time dependent. Access of townpages/local information during leisure time is higher than for overall access, another result that might be expected.

Thus, we find a number of very intuitive results, as well as a few results that have no basis in intuition and even a few which are counterintuitive. While these differences mentioned above are statistically significant, however, one should recognize that the very largest discrepancies are only about three percentage points. Thus, it appears that MobileNet users do not vary their content choice substantially by location.

Another way of examining location-specific differences in content choice is to compare respondents' micro-location-specific primary content to their overall primary content. Concurrence of the two measures of primary content is highest at home (82.64 percent) and work/school (82.64 percent). It is lower during commute (80.69 percent) and lowest during leisure access (77.64 percent). Still, it is quite high for all meta-locations, providing further evidence that content choice varies little by location.

Figure 7 shows the proportions of primary day-parts for each of the meta- and micro-locations, as well as the mean day-part proportion from the overall usage results. Home shows a very strong pattern of evening usage. Work shows similarly disproportionate afternoon usage. Commute clearly has the highest level of morning usage among the meta-locations. Due to missing data, none of the meta-locations' late night/early morning (0:00-6:00) usage reaches the mean from the overall usage results.

Next we discuss usage in each of the four meta-locations. In this discussion, we highlight results for

TABLE 3
Most Heavily Accessed Content by Meta-Location

Content	Primary Content in: Home	Work/School	Commute	Leisure	Primary Content Overall
Email/Chat	**78.63**	**79.04**	75.07	**72.52**	75.69
Ringtone/Picture	**8.00**	**2.69**	**2.13**	**4.09**	5.21
News/Information	**2.42**	3.49	4.61	4.47	3.97
Traffic/Transportation	**1.21**	2.36	**4.66**	**4.98**	2.93
Entertainment	**3.07**	1.96	2.31	**2.95**	2.19
Weather	1.30	1.44	1.52	2.15	1.59
Banking/Trading	**0.82**	1.60	0.96	1.48	1.42
Townpages/Local info	0.39	0.40	0.39	**1.18**	0.50
Shopping	0.13	0.20	0.13	0.34	0.28
Other	**4.02**	6.81	**8.22**	5.83	6.22
N	2312	2495	2298	2369	12676

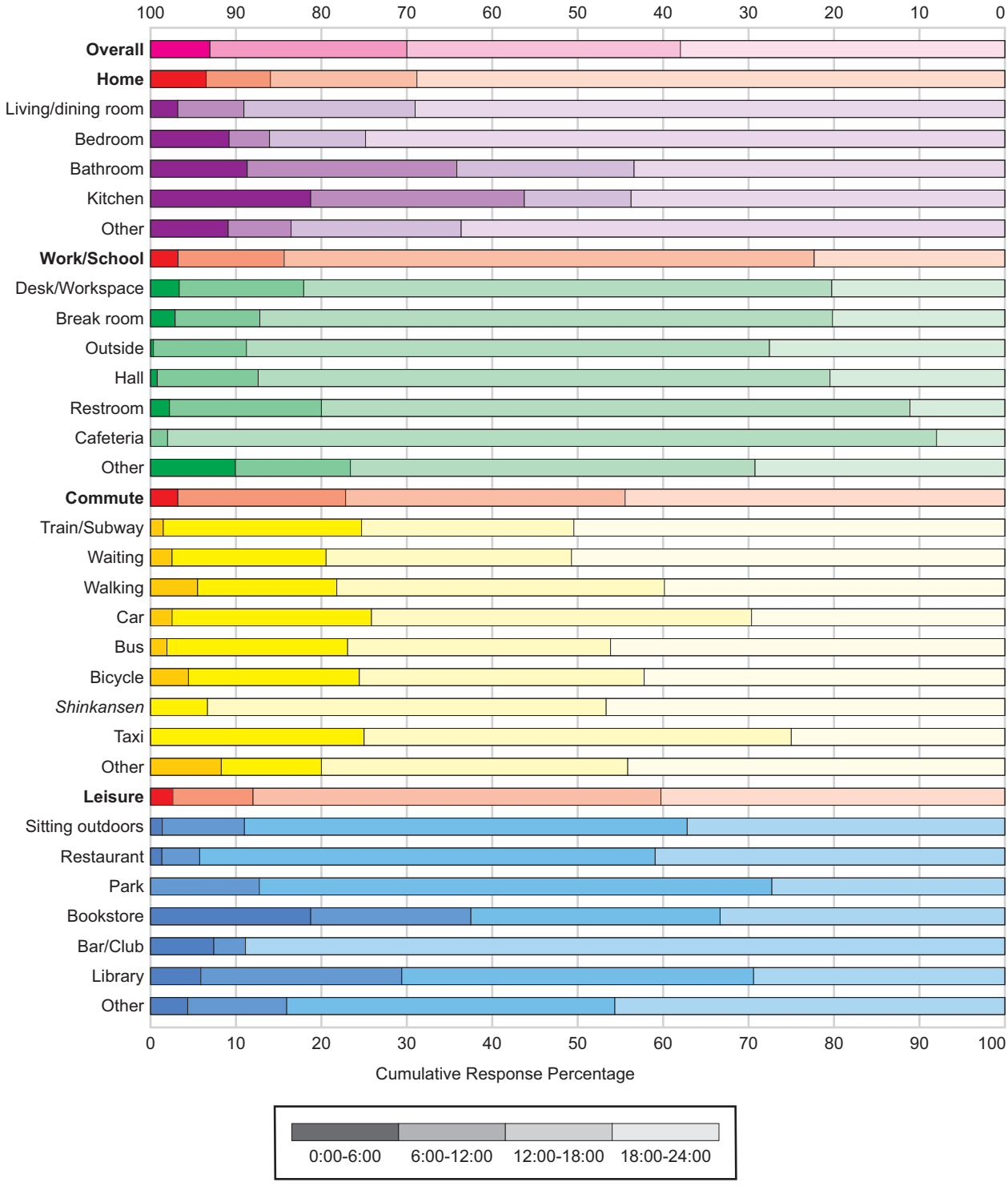
TABLE 4
Primary Micro-Location

Location	N	Percent	Location	N	Percent
Home[1]			*Work/School*[2]		
Living/dining room	1113	49.89	Desk/Workspace	1100	44.95
Bedroom	789	35.37	Break room	566	23.13
Bathroom	53	2.38	Outside	308	12.59
Kitchen	34	1.52	Hall	135	5.52
Other	242	10.85	Restroom	91	3.72
Commute[3]			Cafeteria	52	2.13
Train/Subway	677	30.44	Other	195	7.97
Waiting to board	482	21.67	*Leisure*[4]		
Walking	413	18.57	Sitting outdoors	1102	48.02
Car	330	14.84	Restaurant	452	19.69
Bus	52	2.34	Park	55	2.40
Bicycle	47	2.11	Bookstore	48	2.09
Shinkansen	16	0.72	Bar/Club	27	1.18
Taxi	8	0.36	Library	17	0.74
Other	199	8.95	Other	594	25.88

[1]No home use = 825; Missing = 245.
[2]No work/school use = 781; Missing = 300.
[3]No commute use = 999; Missing = 321.
[4]No leisure use = 897; Missing =327.

[7]We use a two-tailed standard normal approximation of the binomial distribution to test equality of proportions at p = .05.

FIGURE 7
'Primary Day-Part' Proportions by Location



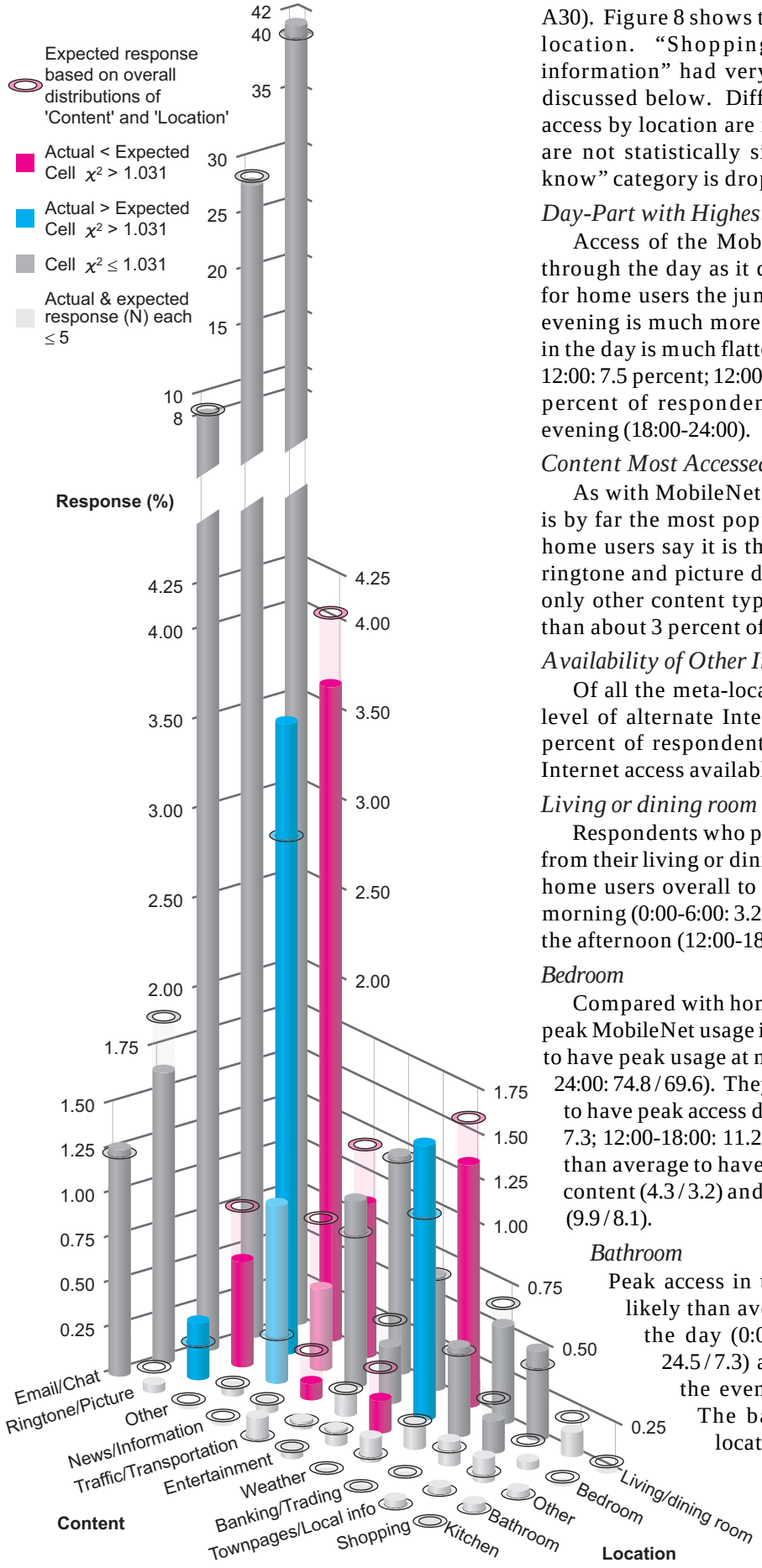
specific micro-locations that differ in a meaningful way from what would be expected based on the overall responses of those who use the MobileNet from that meta-location.

Usage at Home

Of the four meta-locations we defined, home had the highest overall usage rate. As shown in Table 4, the most popular location for MobileNet access within the home is the living / dining room (49.9 percent) followed by the bedroom (35.4 percent) (also see Table A18).[8] One might be surprised that only 1.5 percent have "kitchen" as their primary access location. However, Japanese kitchens tend to be very small, are used almost solely for food preparation and very often have no place to sit down.

[8]825 (25.0 percent) of the 3301 responses to the home meta-location version of the survey indicated they do not use the MobileNet while at home. Another 245 respondents (7.4 percent) did not answer the micro-location question. Home micro-location statistics are based on the remaining 2231 responses.

FIGURE 8
Interaction of 'Content' and 'Home Micro-Location'



Below are the results of day-part, content and alternate access questions, followed by the results for home micro-locations (see Tables A18, A22, A26, A30). Figure 8 shows the interaction of content and location. "Shopping" and "townpages / local information" had very low response rates are not discussed below. Differences in alternate Internet access by location are not mentioned, because they are not statistically significant when the "Don't know" category is dropped.

Day-Part with Highest Access

Access of the MobileNet from home increases through the day as it does for users in general, but for home users the jump in peak access time in the evening is much more dramatic. Peak usage earlier in the day is much flatter (0:00-6:00: 6.5 percent; 6:00-12:00: 7.5 percent; 12:00-18:00: 17.2 percent), with 68.8 percent of respondents have peak usage in the evening (18:00-24:00).

Content Most Accessed

As with MobileNet usage in general, email / chat is by far the most popular content. 80.1 percent of home users say it is their primary content. In fact, ringtone and picture downloads (8.1 percent) is the only other content type that is most used by more than about 3 percent of respondents.

Availability of Other Internet Access

Of all the meta-locations, home had the highest level of alternate Internet penetration, with 44.7 percent of respondents indicating they had other Internet access available.[9]

Living or dining room

Respondents who primarily access the MobileNet from their living or dining room were less likely than home users overall to use it in the late night / early morning (0:00-6:00: 3.2 / 6.4) and more likely use it in the afternoon (12:00-18:00: 20.0 / 16.8).

Bedroom

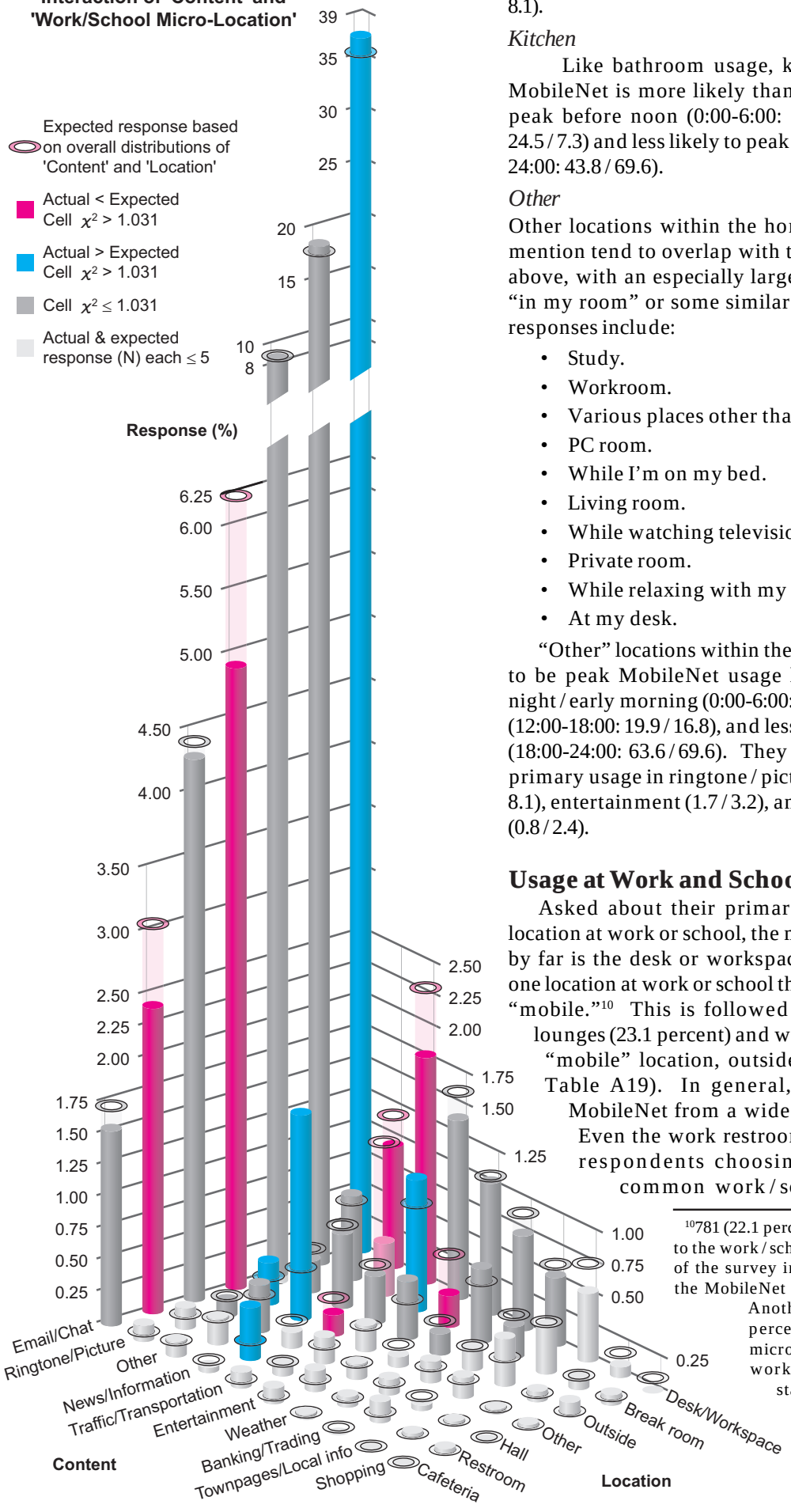
Compared with home users in general, those with peak MobileNet usage in the bedroom are more likely to have peak usage at night (0:00-6:00: 9.2 / 6.4; 18:00-24:00: 74.8 / 69.6). They are concomitantly less likely to have peak access during the day (6:00-12:00: 4.7 / 7.3; 12:00-18:00: 11.2 / 16.8). They are more likely than average to have peak access of entertainment content (4.3 / 3.2) and ringtone / picture downloads (9.9 / 8.1).

Bathroom

Peak access in the bathroom is much more likely than average to be in the first half of the day (0:00-6:00: 11.3 / 6.4; 6:00-12:00: 24.5 / 7.3) and much less likely to be in the evening (18:00-24:00: 43.4 / 69.6). The bathroom is another micro-location with higher than average

[9]This is based on all responses, not disregarding those who indicated they do not use the MobileNet at home.

FIGURE 9
Interaction of 'Content' and 'Work/School Micro-Location'



peak access of ringtone / picture downloads (13.2 / 8.1).

Kitchen

Like bathroom usage, kitchen usage of the MobileNet is more likely than average to be at its peak before noon (0:00-6:00: 18.8 / 6.4; 6:00-12:00: 24.5 / 7.3) and less likely to peak in the evening (18:00-24:00: 43.8 / 69.6).

Other

Other locations within the home that respondents mention tend to overlap with the locations detailed above, with an especially large number indicating, "in my room" or some similar response. Common responses include:

- Study.
- Workroom.
- Various places other than bathroom / toilet.
- PC room.
- While I'm on my bed.
- Living room.
- While watching television.
- Private room.
- While relaxing with my pet.
- At my desk.

"Other" locations within the home are more likely to be peak MobileNet usage locations in the late night / early morning (0:00-6:00: 9.1 / 6.4) or afternoon (12:00-18:00: 19.9 / 16.8), and less likely in the evening (18:00-24:00: 63.6 / 69.6). They are less likely to see primary usage in ringtone / picture downloads (5.4 / 8.1), entertainment (1.7 / 3.2), and news / information (0.8 / 2.4).

Usage at Work and School

Asked about their primary MobileNet access location at work or school, the most common answer by far is the desk or workspace (45.0 percent), the one location at work or school that is perhaps the least "mobile."[10] This is followed by break rooms or lounges (23.1 percent) and what might be the most "mobile" location, outside (12.6 percent) (see Table A19). In general, people access the MobileNet from a wide variety of locations. Even the work restroom had 3.7 percent of respondents choosing it as their most common work / school access point.

[10] 781 (22.1 percent) of the 3528 responses to the work / school meta-location version of the survey indicated they do not use the MobileNet while at work or school. Another 300 respondents (8.5 percent) did not answer the micro-location question. All work / school micro-location statistics are based on the remaining 2447 responses.

Following are the results of day-part, content and alternate access questions (see Tables A19, A23, A27, A31). The interaction of content and location is shown in Figure 9. This is followed by results for work and school micro-locations. Once again, "shopping" and "townpages / local information" had very low response rates and are not discussed.

Day-Part with Highest Access

The pattern of work / school access timing through the day differs from the overall pattern. Instead of peaking in the evening, the most common time for access from the primary access location is the afternoon (12:00-18:00: 62.1 percent), followed by evening (18:00-24:00: 22.3 percent), morning (6:00-12:00: 12.4 percent) and late night / early morning (0:00-6:00: 3.2 percent).

Content Most Accessed

As with other meta-locations, email / chat is the clear leader, with 79.0 percent of respondents saying it is their primary content. No other major category emerges, with only "other" breaking 4 percent in response. Content by location interactions are shown in Figure 9.

Availability of Other Internet Access

Work and school locations are second to home in the availability of alternate Internet access, with 34.7 percent of respondents indicating they have alternative Internet access at their primary MobileNet micro-location.[11] This is also the only meta-location with statistically significant differences in alternative Internet availability by micro-location. These are detailed in the discussion below.

Desk or Workspace

Primary access time for those whose primary work / school micro-location is the desk or workspace is higher than average in the morning (6:00-12:00: 14.6 / 12.6). With respect to content that is most accessed, they are more likely than average to have peak access of email / chat (84.3 / 80.7). They are slightly less interested than average in banking / trading (1.2 / 1.7) and ringtone / picture downloads (2.1 / 2.6). This location is also more likely than average to have alternate Internet access (42.4 / 35.6).

Break Room or Lounge

Respondents whose primary MobileNet usage is in a break room are less likely than average to have their peak usage in the morning (6:00-12:00: 9.9 / 12.6), and more likely in the afternoon (12:00-18:00: 67.0 / 63.1). They vary only slightly from average in terms of content, being higher than average in peak access of news and information (4.5 / 3.6) and lower than average in use of traffic / transportation information (1.1 / 2.4). They are also less likely than average to have alternate Internet access (31.6 / 35.6).

Outside

Peak usage time for outside users is more likely than average in the evening (18:00-24:00: 27.6 / 21.2) and lower in the late night / early morning (0:00-6:00: 0.3 / 3.1). Primary access of news / information (3.7 / 2.4) and banking / trading (3.0 / 1.7) are slightly higher than average. They are less likely than average to have alternate Internet access (29.5 / 35.6).

Hallway

Not surprisingly, those with peak usage in hallways are less likely than average to have alternate Internet access (27.5 / 35.6).

Restroom

Primary access of the MobileNet from the work / school restroom (toilet) is more likely than average to peak in the morning (6:00-12:00: 17.8 / 12.6) and much less likely to peak in the evening (18:00-24:00: 11.1 / 21.2). Primary content access is much less likely to be email / chat (63.7 / 80.7) and more likely to be news and information (11.0 / 3.6).

Cafeteria

Peak usage in the cafeteria is clearly centered in the afternoon day part (12:00-24:00: 90.0 / 63.1), which is not surprising, since it covers the lunch hour. It is much lower than average in other day parts. Cafeteria users are much less likely than average to have alternate Internet access (13.7 / 35.6).

Other

Once again, open-ended responses elicited from those who give "other" as their primary MobileNet access location tend to overlap with the locations already provided. Interestingly, a large number indicated they use the MobileNet "anywhere that I can be alone," many also saying that MobileNet access at work is discouraged or prohibited. Other common responses include:

- The work "scene," or the place that I'm currently working.
- Rest place.
- I receive many emails while at my desk, but I cannot respond from work.
- In the car.
- Noon break.
- I use it in common areas such as the elevator or hall.
- In my office.
- Corridor that has a window.
- In the place that I smoke.
- Library.
- Corridor outside of restroom or in the stairwell.

Peak access from such places is more likely than average at night (0:00-6:00: 9.9 / 3.1; 18:00-24:00: 29.2 / 21.1), and much lower in the afternoon (12:00-18:00: 47.4 / 63.1). It has a higher than average peak usage of ringtone / picture downloads (4.3 / 2.6) and lower use of email / chat (63.4 / 80.7) and news / information (2.2 / 3.6). Alternate Internet access is lower than average (31.2 / 35.6).

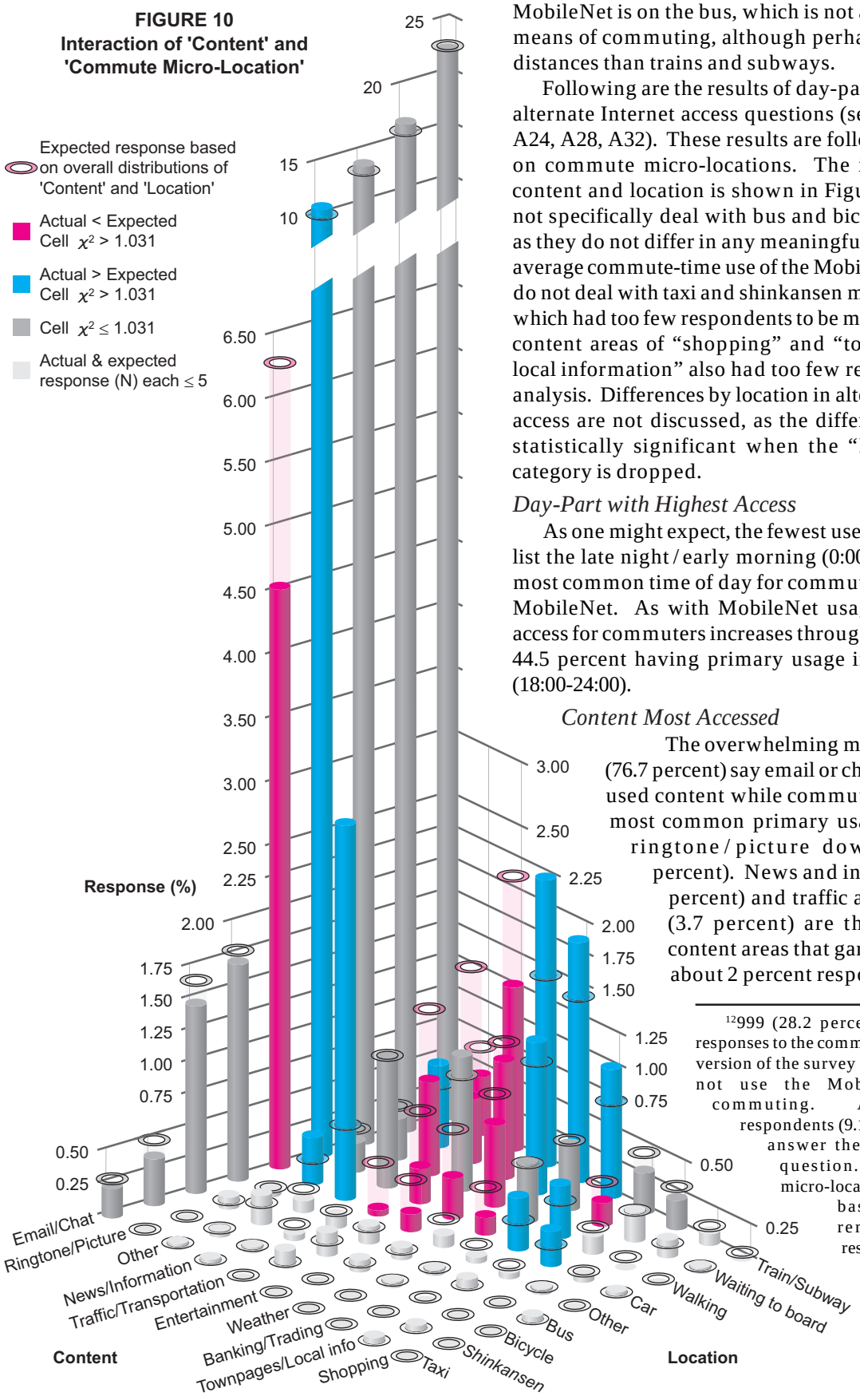
[11]This is based on all responses, not disregarding those who indicated they do not use the MobileNet at work or school.

Usage While Commuting

For commuters, the most common access micro-location is the train / subway (30.4 percent), followed by "waiting to board" (21.7 percent), walking (18.6 percent) and automobile (14.8 percent) (see Table A20).[12] It is not surprising to find low usage on bicycles, obviously difficult and dangerous, or taxis and shinkansen (bullet trains), with relatively few using these as regular commute transportation. It may be more surprising that only 2.4 percent of respondents say their primary commute access of the MobileNet is on the bus, which is not an uncommon means of commuting, although perhaps for shorter distances than trains and subways.

Following are the results of day-part, content and alternate Internet access questions (see Tables A20, A24, A28, A32). These results are followed by notes on commute micro-locations. The interaction of content and location is shown in Figure 10. We do not specifically deal with bus and bicycle locations, as they do not differ in any meaningful way from the average commute-time use of the MobileNet. We also do not deal with taxi and shinkansen micro-locations, which had too few respondents to be meaningful. The content areas of "shopping" and "townpages and local information" also had too few respondents for analysis. Differences by location in alternate Internet access are not discussed, as the differences are not statistically significant when the "Don't know" category is dropped.

FIGURE 10
Interaction of 'Content' and 'Commute Micro-Location'



Day-Part with Highest Access

As one might expect, the fewest users (3.2 percent) list the late night / early morning (0:00-6:00) as their most common time of day for commute access of the MobileNet. As with MobileNet usage in general, access for commuters increases through the day, with 44.5 percent having primary usage in the evening (18:00-24:00).

Content Most Accessed

The overwhelming majority of users (76.7 percent) say email or chat is their most used content while commuting. The next most common primary usage content is ringtone / picture downloads (4.2 percent). News and information (3.9 percent) and traffic and timetables (3.7 percent) are the only other content areas that garner more than about 2 percent response.

[12] 999 (28.2 percent) of the 3544 responses to the commute meta-location version of the survey indicated they do not use the MobileNet while commuting. Another 321 respondents (9.1 percent) did not answer the micro-location question. All commute micro-location statistics are based on the remaining 2224 responses.

Availability of Other Internet Access

Somewhat surprisingly, about a quarter of respondents (25.9 percent) say they have other Internet access available while commuting.[13] Possible sources are personal digital assistants (PDAs) or computers with wireless modems or WiFi "hotspot" access cards.

Train or Subway

Those using the MobileNet most from the train or subway are more likely than commute users on average to have their highest access in the morning or evening (6:00-12:00: 23.2 / 19.8; 18:00-24:00: 50.3 / 44.4), with access in other day-parts being lower than average (0:00-6:00: 1.5 / 3.2; 12:00-18:00: 24.9 / 32.5). They are more likely than average to have primary access of content in the areas of news / information (7.3 / 4.8), entertainment (3.3 / 2.4), and perhaps not surprisingly, traffic information and transportation timetables (6.1 / 4.6). They are less likely than average to have peak access of ringtone or picture downloads (1.5 / 2.2).

Waiting to Board

Tose with primary access occurring during waiting time are less likely than average to have their peak access in the afternoon (12:00-18:00: 29.0 / 32.6) and more likely to have it in the evening (18:00-24:00: 50.5 / 44.4). Their most accessed content is more likely than average to be ringtone or picture downloads (2.9 / 2.2) and less likely than average to be weather information (0.8 / 1.5).

Walking

Commuters who access the MobileNet most while walking are more likely than average to have their peak commute usage in the late night / early morning (0:00-6:00: 5.5 / 3.2) or afternoon (12:00-18:00: 38.4 / 32.5) and less likely than average to have peak usage in the morning (6:00-12:00: 16.3 / 19.8) or evening (18:00-24:00: 39.9 / 44.6). This is the opposite pattern from those with primary commute usage on the train / subway. Their primary content choice differs very little from commuters on average, although they are more likely than average to primarily access weather information (2.2 / 1.5) and less likely to be accessing traffic / timetable information (3.4 / 4.6).

Automobile

Primary access in automobiles is more likely than overall commute access to occur in the morning (6:00-12:00: 23.3 / 19.8), and is much more likely than average in the afternoon (12:00-18:00: 44.5 / 32.5).[14] This is the only commute location that does not have the highest level of access in the evening (18:00-24:00: 29.7 / 44.6). In content choice they differ in many ways from the average commuter. This is the only commute micro-location with higher than average primary usage of email / chat (81.3 / 76.2). They also have higher than average primary content of weather (2.8 / 1.5) and banking / trading (1.9 / 1.0). It is less likely to be news / information (1.9 / 4.8), traffic / timetables (2.2 / 4.6) and entertainment (0.9 / 2.4).

Other

Typical open-ended explanations by those who answered "other" for primary micro-location were:

- When a message comes when I'm driving I stop and check mail.
- Send mail while waiting for a train.
- I use in a lesson / class.
- Place that I can rest.
- Break time.
- I don't make a certain time.

Respondents whose commute access of the MobileNet occurs from a location not listed above are more likely than commuters on average to have their peak access in the late night / early morning (0:00-6:00: 8.3 / 3.2) and less likely to have it in the morning (6:00-12:00: 11.7 / 19.8). They are somewhat more likely to primarily access ringtone / picture downloads (4.4 / 2.2). They are less likely, however, to have primary access in the areas of news and information (0.6 / 4.8) and traffic / transportation info (1.7 / 4.6). They have an especially low primary usage rate of email / chat (55.0 / 76.2), and are the only group of commute users to have primary usage of email / chat that is much lower than average.

Usage in Leisure Venues

Leisure venue access is most common while sitting outdoors (48.0 percent) (see Table A21).[15] Restaurant usage is also common (19.7 percent). Perhaps the biggest surprise here is the relatively low number of respondents who offer "bar or club" as their most common leisure access point (1.2 percent).

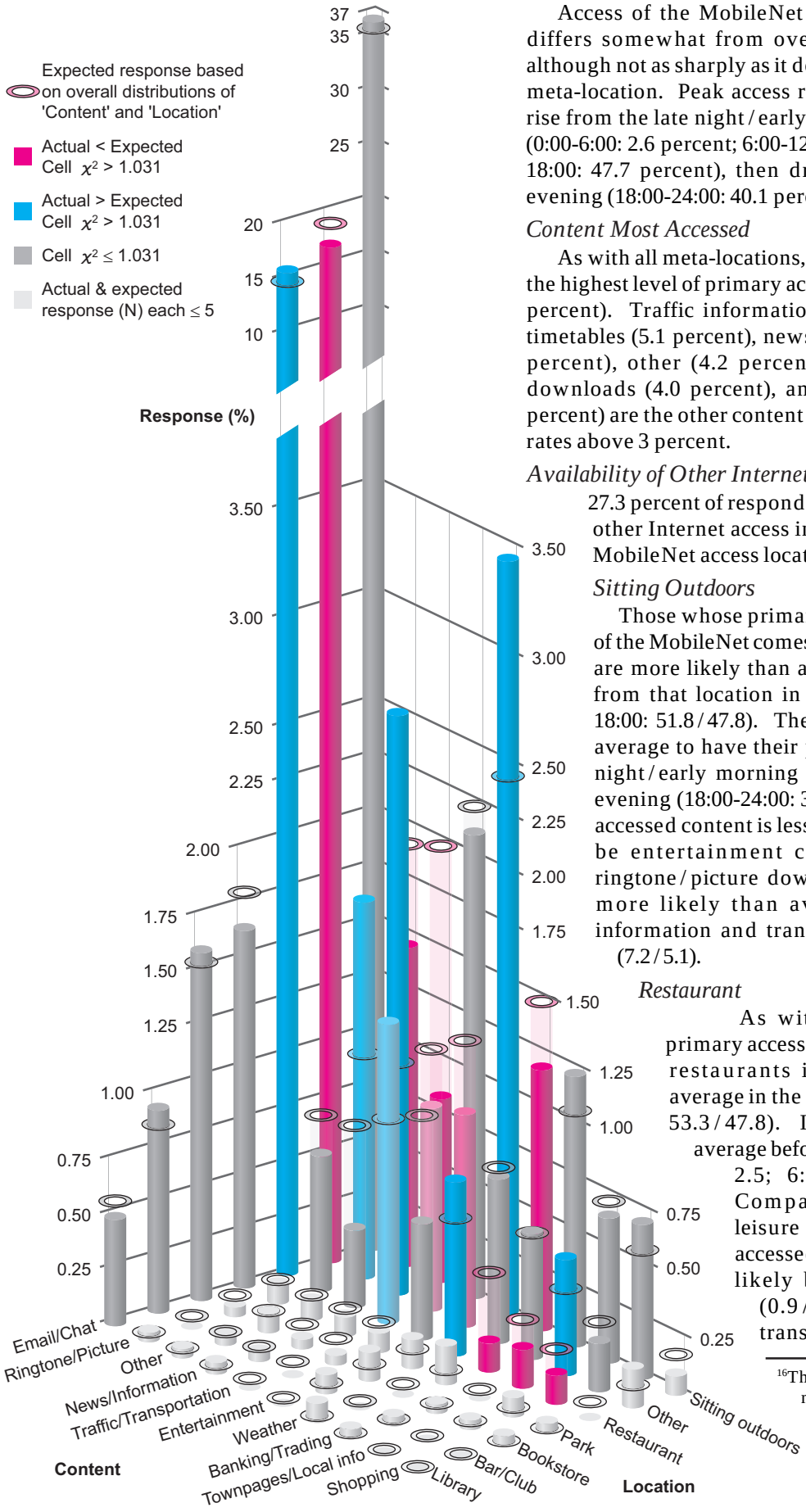
Following we present the results of day-part, content and alternate Internet access questions (see Tables A21, A25, A29, A33). The interaction of content and location is shown in Figure 11. These are followed by the results for leisure micro-locations, with the exception of "library", which had too few respondents for meaningful interpretation of results. Differences in primary content are discussed only for "sitting outdoors," "restaurant" and "other." None of the other micro-locations differed in a meaningful way in email / chat, and all other content categories for these locations had too few responses to be analyzed. Differences in the access of shopping content by micro-location are not discussed for any micro-location, as shopping received a very small number of responses. Differences by location in alternate Internet access are not discussed, as the

[13]This is based on all responses, not disregarding those who do not use the MobileNet while commuting.

[14]We were not able to ascertain in what proportions automobile usage is split between passengers and drivers.

[15]897 (25.5 percent) of the 3519 responses to the leisure meta-location version of the survey indicated they do not use the MobileNet in leisure venues. Another 327 respondents (9.3 percent) did not answer the micro-location question. All leisure micro-location statistics are based on the remaining 2295 responses.

FIGURE 11
Interaction of 'Content' and 'Leisure Micro-Location'



differences are not statistically significant when the "Don't know" category is dropped.

Day-Part with Highest Access

Access of the MobileNet in various day-parts differs somewhat from overall access patterns, although not as sharply as it does in the work / school meta-location. Peak access rates in leisure venues rise from the late night / early morning to afternoon (0:00-6:00: 2.6 percent; 6:00-12:00: 9.4 percent; 12:00-18:00: 47.7 percent), then drop somewhat in the evening (18:00-24:00: 40.1 percent).

Content Most Accessed

As with all meta-locations, the content that enjoys the highest level of primary access is email / chat (73.8 percent). Traffic information and transportation timetables (5.1 percent), news and information (4.6 percent), other (4.2 percent), ringtone / picture downloads (4.0 percent), and entertainment (3.1 percent) are the other content areas with peak access rates above 3 percent.

Availability of Other Internet Access

27.3 percent of respondents indicate they have other Internet access in their primary leisure MobileNet access location.[16]

Sitting Outdoors

Those whose primary leisure venue access of the MobileNet comes while sitting outdoors are more likely than average to have access from that location in the afternoon (12:00-18:00: 51.8 / 47.8). They are less likely than average to have their peak access in the late night / early morning (0:00-6:00: 1.4 / 2.5) or evening (18:00-24:00: 37.2 / 40.3). Their most accessed content is less likely than average to be entertainment content (2.5 / 3.1) or ringtone / picture downloads (3.0 / 4.0), and more likely than average to be traffic information and transportation timetables (7.2 / 5.1).

Restaurant

As with sitting outdoors, primary access of the MobileNet from restaurants is more likely than average in the afternoon (12:00-18:00: 53.3 / 47.8). It is less likely than average before noon (0:00-6:00: 1.3 / 2.5; 6:00-12:00: 4.4 / 9.4). Compared to averages for leisure use, primary content accessed in restaurants is less likely be banking / trading (0.9 / 1.5), traffic and transportation information

[16]This is based on all responses, not disregarding those who do not use the MobileNet in leisure locations.

(2.7 / 5.1), townpages and local information (0.7 / 1.2) and weather (0.7 / 2.2). There is higher than average primary access of entertainment content (4.0 / 3.1).

Park

Understandably, parks have a higher rate of primary access in the afternoon (12:00-18:00: 60.0 / 47.8) than do any other leisure locations. Primary access in the evening is lower than average (18:00-24:00: 27.3 / 40.3).

Bookstore

Primary access from bookstores is much lower than average in the afternoon (12:00-18:00: 29.2 / 47.8). It is higher than average in the morning (6:00-12:00: 18.8 / 9.4), and much higher than average in the late night / early morning (0:00-6:00: 18.8 / 2.6), a phenomenon for which we have no explanation.

Bar or Club

Not surprisingly, peak access of the MobileNet primarily from bars and clubs is much higher than average in the evening (18:00-24:00: 88.9 / 40.3). It is much lower in the afternoon (12:00-18:00: 0.0 / 47.8).

Other

Again, open-ended responses to "other" yielded a great deal of overlapping locations. Typical responses include:

- Commuting time.
- Driving in the car.
- Before sleeping.
- I use email while at work because I cannot carry on personal conversations while working.
- Home.
- Train station.
- Indefinite.
- Lounge.
- When I get in the car to go out.
- When I'm waiting or have spare time.
- Commuting on a train.
- On the bus or train.
- While I'm shopping or have idle time.

From such locations, peak access is lower than average in the afternoon (12:00-18:00: 38.4 / 47.8) and higher in all other day parts (0:00-6:00:4.4 / 2.5; 6:00-12:00: 11.6 / 9.4; 18:00-24:00: 45.7 / 40.3). Higher than average peak access is made of banking and trading (2.1 / 1.5), and ringtone and picture downloads (6.8 / 4.0). Lower than average access is seen for news and information (3.6 / 4.6), and traffic and transportation (3.8 / 5.1). This is the only leisure micro-location with primary access of email / chat that differs in a meaningful way from average, with the result being lower, but not strikingly so (66.7 / 73.9).

Summary

Those looking for patterns of usage by time or specific location within the home will find very little. There is a more prominent spike in evening usage at home than in other meta-locations. Usage anywhere but the living / dining room or bedroom is uncommon. These uncommon locations have higher than average access in the morning, and lower than average access in the evening. Taken together, however, they do not begin to rival the bedroom as the primary late night / early morning location (share of total 0:00-6:00 usage: 51.4 percent) or the living / dining room as the primary morning location (share of total 6:00-12:00 usage: 53.1 percent). There are very few differences in content by home micro-location, the most dramatic being the relatively high rate of ringtone / picture downloads from the bathroom. Overall, however, these results offer relatively little actionable insight, especially given that home is the leading access point.

Access of the MobileNet from work and school follows the general pattern we have seen of portability being the predominant factor in access location. Access occurs most where people spend the most time. For example, cafeteria access overwhelmingly occurs during the day-part that includes the lunch hour. We also find almost half of respondents saying their desk or workspace is the primary access point for the MobileNet. With respect to content, desk / workspace access is very similar to access in general, overwhelmingly email / chat. The same is true for the next largest group, those with primary access from a break room or lounge. Moving to the number three access location, outside, yields higher than average access of traffic / transportation information, but the difference is quite small. The restroom and "other" locations are the only areas with lower than average primary access of email / chat, with the departures from average being large, but not large enough to bring primary usage of email / chat below 63 percent. The restroom has an especially high primary access of news / information, but this is a small group. Once again, meaningful patterns are hard to find.

There are some patterns in the timing of commute usage of the MobileNet by mode of transportation, the most significant being automobile commute time's relatively heavy afternoon usage. There are no obvious reasons, however, why different transportation modes would have primary use at different times of day. Most of the differences from average in primary content are not surprises. For example, train / subway commuters are higher than average and walking commuters are lower than average users of traffic / transportation information. It is also not surprising that those who walk would have higher primary usage of weather information. There are other interesting differences. For example, train / subway commuters have higher than average use of entertainment content, while automobile commuters are lower than average, which would make sense if they are drivers. Some differences, however, do not have clear explanations. For

example, why would automobile commuters have higher than average primary use of banking / trading? Once again, however, differences from expectations tend to be quite small, which does not bode well for targeted marketing.

Leisure micro-locations also yield very few insights. The low response rates for most locations, together with the prevalence of email / chat as primary content in every location, led to content-specific results that were too thin to carry any meaning for four of the seven locations. In the other locations, there are a few meaningful differences in a statistical sense, but it is not at all clear what actionable insights they might provide. For example, those sitting outdoors are more likely and those in restaurants are less likely than average to access traffic / transportation information. Do these groups have different information needs which might correlate with their choice of leisure location, or is this more a matter of outdoor usage having a much lower than average probability of occurring in the evening, possibly after transportation plans have been decided? In terms of timing of access, leisure access is more likely in the latter half of the day. It may be somewhat surprising that leisure access is higher in the afternoon than in the evening, but the percentages are not so very far apart.

BEHAVIORAL DIFFERENTIATORS OF MOBILENET USE RATES

It is clear from the discussion above that exploitable patterns of content based on time of day and location are difficult to find. One may argue however, that managers should focus their attention on heavy users. In the discussion of general usage results above, we found that men tended to be somewhat lighter users, although they have higher proportional representation in the group that spends over 90 minutes a day on the MobileNet. We found no apparent relationship between usage and age.

Investigating whether heavy users have a particularly high proportion of their usage in any particular day-part, we find the strongest correlation between minutes per day and percentage of usage in the late night / early morning (0:00-6:00).[17] As seen in Table 4, as usage increases, so does the proportion of usage occurring in the late night / early morning, but the correlation is not a large one. A smaller negative correlation exists between minutes per day and the proportion of usage in the afternoon.

Table 5 also shows correlations between usage and the proportion of access in each of the meta-locations. These four correlations are all statistically significant, but the largest is just over 0.1. This is the correlation between minutes per day and proportion of usage at home. A smaller positive correlation exists for work / school access proportion. Commute proportion has a negative correlation with usage, and leisure proportion has a somewhat stronger negative correlation. It should come as no surprise that as usage increases, the proportion of usage increases in locations where people tend to spend most of their time, at home, work, or school. Yet we see that the only positive correlation for day-part is with that day-part that one would expect to have the fewest waking hours. While meta-location and some day-parts are indicators of usage, the correlations are small enough that it is unlikely that these broad measures could be used to target heavy users. Next we turn to a discussion of content and usage, followed by discussions of micro-locations and usage.

TABLE 5
Correlation of Daily Usage with Day-Part[1] and Meta-Location Proportion[2]

Percent usage from:	Correlation	P-value
0:00-6:00	0.1119	< .0001
6:00-12:00	-0.0171	.1623
12:00-18:00	-0.0456	.0002
18:00-24:00	-0.0110	.3689
Home	0.1019	< .0001
Work/school	0.0370	.0042
Commute	-0.0623	< .0001
Leisure	-0.0953	< .0001

[1]N = 6710.
[2]N = 6003.

Primary Content Choice and Usage Rate

Examining content choice by MobileNet usage level, there are very few meaningful departures from expectations that can be interpreted as showing any kind of trend (see Table A34). News and information appears to be more common as primary content for heavier users, but it is not a monotonic relationship (10-20 min. / day: 5.2 / 4.0; 20-30 min / day: 5.5 / 4.0; 60-90 min / day: 9.4 / 4.0; > 90 min. / day: 5.9 / 4.0). The lowest usage level is the only one with higher than average primary use of traffic / transportation information (3.7 / 3.0) and weather information (2.1 / 1.6), although the differences are small. Primary usage of entertainment content increases with usage, but falls off sharply above 90 minutes per day.

Home and Usage Rate

As mentioned above, there is a positive correlation between overall MobileNet usage and the proportion of usage that takes place at home, but the correlation is only about 0.1. Examining cross-tabulations of usage and primary home micro-location yields very little added insight (see Table A38). The lightest users of the MobileNet (less than 5 minutes / day) are more likely than average to have their primary usage in the living / dining room (53.6 / 49.8). Higher usage is associated to a minor extent with lower living / dining

[17]Correlations are used for expository simplicity, despite the fact that usage per day data were collected with a categorical variable. Midpoints of each category range are used for the correlations, with 120 minutes used for the "over 90 minutes" category.

TABLE 6
Day-Part Proportion by Content Spending

	Mean (std. err.) usage proportion				
	0:00-6:00	6:00-12:00	12:00-18:00	18:00-24:00	N
Overall	6.96 (0.16)	23.05 (0.22)	32.01 (0.25)	37.98 (0.30)	8941
Pay for Content					
Yes	8.47 (0.32)	23.29 (0.39)	31.31 (0.42)	36.93 (0.51)	2537
No	6.34 (0.19)	23.27 (0.29)	32.85 (0.33)	37.53 (0.39)	5328
Yen per Month					
Less than 250	6.71 (0.49)	24.58 (0.80)	32.22 (0.82)	36.49 (0.97)	751
250-500	8.35 (0.54)	23.08 (0.67)	29.74 (0.71)	38.82 (0.91)	870
501-1000	8.08 (0.72)	25.48 (0.98)	31.97 (1.06)	34.47 (1.21)	419
Over 1000	10.68 (0.77)	20.72 (0.39)	31.32 (0.84)	37.28 (0.97)	612

room usage (20-30 min. / day: 41.0 / 49.8; 60-90 min. / day: 33.3 / 49.8). Usage of 30 to 90 minutes per day is associated with higher than average primary access from the bedroom (30-60 min / day: 46.0 / 35.5; 60-90 min. / day: 46.2 / 35.5), but the trend does not carry on at the highest usage level.

Work or School and Usage Rate

Cross-tabulations of work / school micro-locations and daily usage show the lightest users having slightly lower than average primary usage in break rooms (20.5 / 23.5) and cafeterias (1.4 / 2.1) (see Table A39). Their usage is slightly higher than average outside (13.9 / 12.4) and in hallways (6.2 / 5.5). There are no departures from normal for any usage levels above 30 minutes per day, with the exception of "other" (30-60 min / day: 4.2 / 7.3).

Commute and Usage Rate

The lightest users of the MobileNet show lower than average primary usage from the train / subway (26.3 / 30.7) and bus (1.8 / 2.4) (see Table A40). Heavier users appear to have a lower likelihood of primary usage than average while waiting to board (30-60 min / day: 17.1 / 22.0; 60-90min / day: 7.7 / 22.0; > 90 min / day: 13.5 / 22.0), although it us not a monotonically decreasing percentage over this range.

Leisure Venues and Usage Rate

The leisure meta-location has the largest negative correlation with usage, -0.09. It's lightest MobileNet users have lower than expected primary usage in restaurants (16.4 / 19.9), parks (1.9 / 2.4), and libraries (0.5 / 0.8) (see Table A41). Their usage in bookstores in slightly higher than average (2.8 / 2.1). There is an especially high percentage of primary usage in restaurants for the 30 to 60 minutes per day group (38.7 / 19.9), but groups on either side of this are not different from average in a meaningful way.

Summary

Higher proportion of use in the late night / early morning is associated with slightly higher overall usage rates, while a smaller negative effect exists for afternoon usage proportion. We see slightly higher usage as the proportion of MobileNet time at home increases. A similar, but weaker, effect exists for work / school. We see slightly lower usage as leisure proportion increases, with a weaker drop in usage as commute time increases. Thus, those for whom MobileNet portability is not outweighed by roaming capability, those whose use is centered in less "mobile" locations, tend to have higher use overall. There are weak indications that heavier users are more likely to be accessing from the bedroom at home, the break room at work, the train / subway or bus while commuting, and restaurants during leisure time. None of the micro-location specific results, however, had clear patterns of monotonically increasing or decreasing primary access as usage increased. Thus, just as with MobileNet users in general, heavy users cannot be effectively differentially targeted simply by the time and physical location from which they access the MobileNet.

BEHAVIORAL DIFFERENTIATORS OF PAYMENT FOR CONTENT

Just as one would like to target heavy users by content, time, and location, it would be helpful to marketers if those who are more likely to pay for content could be targeted. Next, we discuss the differences in MobileNet users' behavioral patterns based on whether they pay for content, and how much they pay for content.

Time of Day and Payment for Content

Table 6 shows the mean proportion of usage in each day-part, with groups divided according to their responses to questions regarding payment for content. There are a few differences that are significant at the 5 percent level (p = .05). Those who pay for content have higher mean usage in the late night / early morning, and lower usage in the afternoon. Those who spend the most have significantly more usage in the late night / early morning, backing up the "payment for content" results. Differences in mean afternoon usage for those who spend the most and least, however, are not significant. Instead, morning emerges as the day-part where heavier spenders have less usage. Statistical significance aside, the differences in mean usage over day parts are rather small.

Meta-Location and Payment for Content

Table 7 shows the mean proportion of usage for each meta-location, groups again being divided according to their responses to questions regarding payment for content. There are a few differences that

TABLE 7
Meta-Location Proportion by Content Spending

	Mean (std. err.) usage proportion				
	Home	Work/School	Commute	Leisure	N
Overall	29.42 (0.35)	28.63 (0.34)	19.81 (0.30)	22.14 (0.31)	8003
Pay for Content					
Yes	29.42 (0.62)	30.00 (0.61)	20.10 (0.53)	20.48 (0.52)	2179
No	27.54 (0.45)	28.60 (0.45)	20.80 (0.41)	23.06 (0.42)	4665
Yen per Month					
Less than 250	27.09 (1.15)	30.12 (1.19)	21.20 (1.06)	21.59 (1.05)	636
250-500	29.96 (1.05)	28.65 (1.02)	20.02 (0.91)	21.36 (0.82)	731
501-1000	28.60 (1.15)	28.23 (1.47)	21.96 (1.36)	21.20 (1.25)	369
Over 1000	32.07 (1.29)	32.24 (1.19)	17.73 (0.97)	17.96 (0.95)	552

are significant at the 5 percent level (p = .05). Those who pay for content have higher mean usage at home. They have lower mean usage in leisure locations. The heaviest spenders (over ¥1000 per month) have higher mean usage at home than the lightest spenders (under ¥250 per month). The opposite is true for commute and leisure locations, the heaviest spenders having lower mean usage. Thus, the meta-location that is probably the least "mobile," home, emerges as a relatively important location not only in overall usage levels, but in payment for content. Conversely, leisure and to a lesser extent commute, meta-locations that are more "mobile," where roaming capability would be vital, are relatively less important. The by now familiar caveat applies, however, with absolute differences being relatively small despite statistical significance.

Usage Rate and Payment for Content

There are certainly significant differences in payment for content depending on daily usage of the MobileNet, the proportion that pays for content rising dramatically with usage. Of the lightest users (less than 5 minutes per day) 17.6 percent said they pay for content (see Table A35). Increasing usage only slightly leads to a large increase in the proportion of payers, however, as those with 5 to 10 minutes of usage per day have a content buying rate of 31.0 percent. The rate continues to rise, reaching 48.9 percent for those with 30 to 60 minutes of usage each day and 53.7 percent for those with over 90 minutes.

One should be concerned not just with whether a higher proportion of heavy users pays for content, but also with whether the amount paid increases with usage. Of those who stated they pay for content (or are not sure whether they pay extra), the lightest payment level (less than ¥250 per month) has a disproportionately high percentage of respondents who use the MobileNet for less than 5 minutes per day (51.2 / 36.9). All other usage levels for the lowest payment group have lower than average response (see Table A36). Increasing spending to ¥250 to ¥500 per month leads to a sharp drop in the percentage of very light users (40.0 percent), and the percentage continues to drop dramatically as payment levels increase (¥501-1000: 29.9 percent; > ¥1000: 20.1 percent).

As usage levels increase, modal spending levels also increase. Modal spending rises to ¥250 to ¥500 per month for those with 5 to 30 minutes of usage per day, then to over ¥1000 per month for those with over 30 minutes of usage per day. Of respondents who stated they pay for content (or are not sure whether they pay extra), 65.5 percent of those with over 90 minutes of usage per day pay more than ¥1000 per month for content.

Content and Payment for Content

While usage and payment for content are clearly related, it is much more difficult to find clear patterns in content choice by payment level (see Table A37). Primary usage of email / chat does not vary in a meaningful way over payment levels. Ringtone and picture downloads are highest at middle spending levels (¥250-500: 7.9 / 6.6; ¥501-1000: 7.9 / 6.6). Primary use of news and information is higher than average for those who pay ¥501 to ¥1000 per month (6.5 / 5.4). Traffic / transportation information is more likely to be primary content for those paying ¥250 to ¥500 per month (3.4 / 2.7) and less likely for those paying over ¥500 per month (¥501-1000: 1.6 / 2.7; > ¥1000: 2.0 / 2.7). The relationship, however, is not monotonically decreasing.

Entertainment content is less common as primary content for the lightest payers (< ¥250: 2.1 / 4.3) and more common for heavy payers (¥501-1000: 6.5 / 4.3; over ¥1000: 5.2 / 4.3), but again the relationship is not monotonic. Primary usage of weather information is higher than average for the lightest payers (< ¥250: 2.1 / 1.5) and lower than average for those who pay the most (> ¥1000: 0.7 / 1.5). Banking / trading is has its highest primary usage percentage in the over ¥1000 per month group (2.2 / 1.4). While there are a number of individual meaningful cells, however, there is not a single monotonic pattern of primary usage across payment levels for any content type.

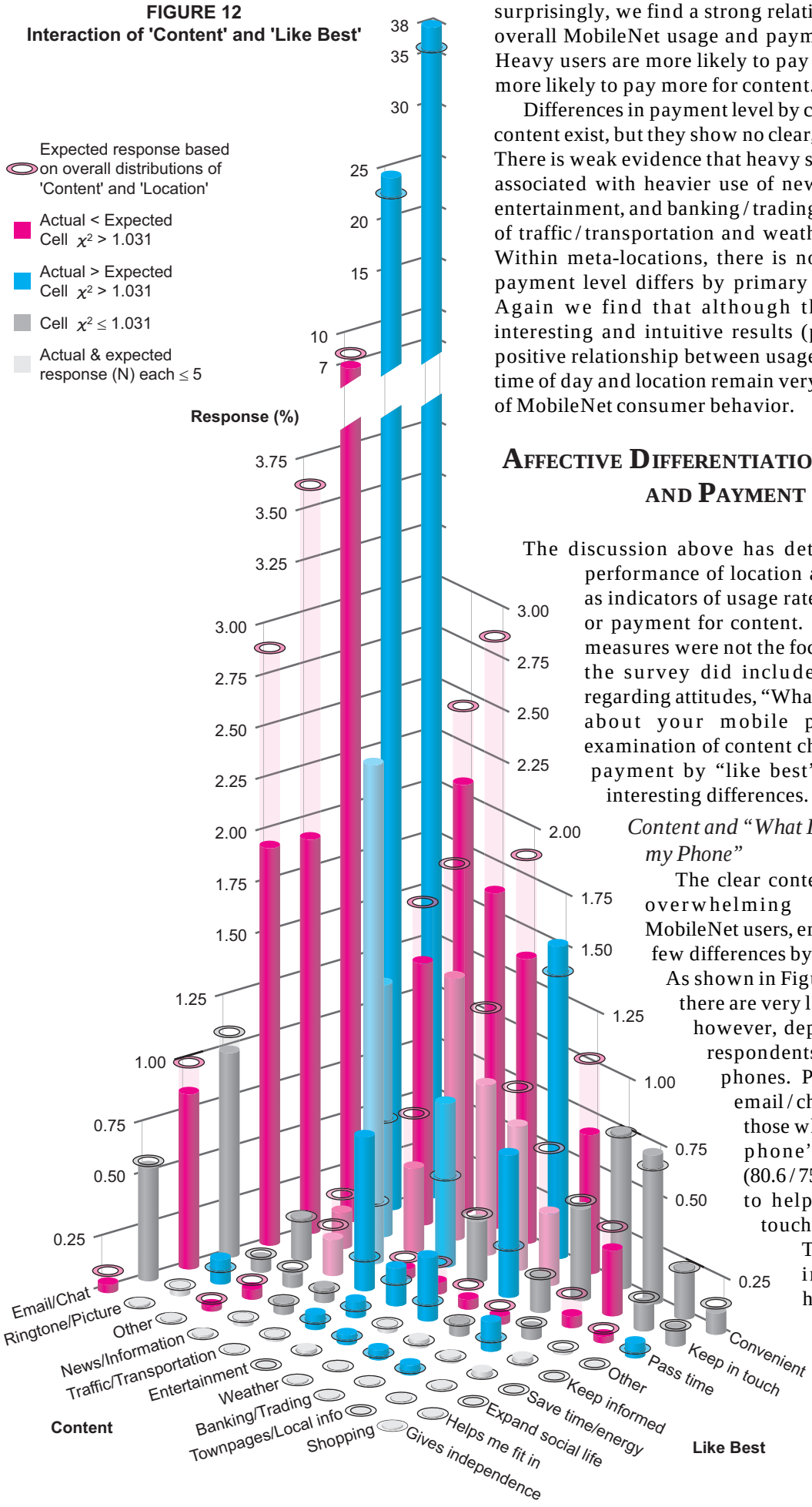
Micro-Location and Payment for Content

An examination of payment levels by micro-location yields even less information. The interaction of spending level and micro-location is not statistically significant for any of the four meta-locations (see Tables A42, A43, A44, A45).

Summary

We find evidence that late night / early morning users are somewhat heavier spenders. We also find that home users are somewhat heavier spenders, and leisure users are somewhat lighter spenders. Not

FIGURE 12
Interaction of 'Content' and 'Like Best'



surprisingly, we find a strong relationship between overall MobileNet usage and payment for content. Heavy users are more likely to pay for content, and more likely to pay more for content.

Differences in payment level by choice of primary content exist, but they show no clear, strong patterns. There is weak evidence that heavy spending may be associated with heavier use of news/information, entertainment, and banking/trading, and lighter use of traffic/transportation and weather information. Within meta-locations, there is no evidence that payment level differs by primary micro-location. Again we find that although there are some interesting and intuitive results (particularly the positive relationship between usage and spending), time of day and location remain very poor indicators of MobileNet consumer behavior.

AFFECTIVE DIFFERENTIATION OF USAGE AND PAYMENT

The discussion above has detailed the poor performance of location and time of day as indicators of usage rate, content choice or payment for content. While affective measures were not the focus of this study, the survey did include one question regarding attitudes, "What do you like best about your mobile phone?" An examination of content choice, usage and payment by "like best" reveals some interesting differences.

Content and "What I Like Best About my Phone"

The clear content focus of the overwhelming majority of MobileNet users, email/chat, shows few differences by time or location. As shown in Figure 12, however, there are very large differences, however, depending on how respondents feel about their phones. Primary usage of email/chat is higher for those who most like their phone's convenience (80.6/75.8) or it's ability to help them keep in touch (81.9/75.8) (see Table A46). It is interesting, however, that

those who answered that their phone expands their social life (65.2 / 75.8) were less likely than average to have primary usage of email / chat. Lower than average primary use of email / chat was also displayed by those who say their phone helps them pass time (65.4 / 75.8), keeps them informed (50.7 / 75.8) or gives them independence (33.3 / 75.8). These are much larger departures from average than were found for email / chat for any time, location, usage or payment group. Not surprisingly, ringtone / picture downloads are more common primary content for those who say their phones help them pass time (11.3 / 5.2). They are also more common for those who say their phone expands their social life (9.2 / 5.2). They are less common for those who focus on convenience (4.4 / 5.2) or keeping in touch (4.3 / 5.2).

News and information stands out as primary content for those whose phones keep them informed (19.6 / 4.0). It is also higher than average primary content for those who use their phones to pass time (7.4 / 4.0), and is lower than average for those who focus on convenience (2.9 / 4.0) or keeping in touch (2.8 / 4.0). Entertainment content, like news / information, has its highest primary usage among those who say their phone keeps them informed (8.1 / 2.2) or helps them pass time (6.4 / 2.2). It also shows higher than average primary usage among those who say the phone expands social life (3.7 / 2.2). Traffic and transportation information has smaller departures from average. This content has slightly lower than average primary usage for those who say their phones help them keep in touch (2.4 / 2.9) and somewhat higher than average usage for most others, the highest being for those who say their phone helps them save time / energy (5.6 / 2.9) or expand their social life (5.5 / 2.9). Weather also has highest primary usage among those who say the phone expands social life (3.7 / 1.6) or saves time / energy (2.8 / 1.6). Banking / trading's highest primary usage rates are for those who keep informed (3.8 / 1.4) and, surprisingly, those for whom the phone expands social life (3.7 / 1.4).

Usage and "What I Like Best About my Phone"

Looking for heavy users in different answers to what people like about their phones yields some clear patterns. Those who say the thing they like best about their phone is that it helps them pass time are less likely than average to be very light users of the MobileNet (< 5 min. / day: 43.1 / 53.6) and more likely than average to have usage between five and ninety minutes per day (5-10 min. / day: 23.4 / 20.9;10-20 min. / day: 15.0 / 11.2; 20-30 min. / day: 8.9 / 6.4; 30-60 min. / day: 5.8 / 4.4; 60-90 min. / day: 1.8 / 1.4) (see Table A47). The pattern is even stronger for those who say their phones keep them informed (< 5 min. / day: 37.6 / 53.6; 10-20 min. / day: 15.4 / 11.2; 20-30 min. / day: 10.8 / 6.4; 30-60 min. / day: 7.3 / 4.4; 60-90 min. / day: 2.5 / 1.4; > 90 min. / day: 4.2 / 2.2). We see differences at the top and bottom of the usage scale for "expands my social life," the category that is associated with the highest rate of usage of over one hour per day (< 5 min. / day: 47.4 / 53.6; 60-90 min. / day: 3.6 / 1.4; > 90 min. / day: 4.9 / 2.2).

Paying for Content and "What I Like Best About my Phone"

Of those who responded to both the "pay extra for content" and "like best about my phone" questions, 26.0 percent indicated they pay for content. Three "like best" categories are higher than this in a meaningful way: "keep informed" (46.0), "passes time" (37.4) and "helps me fit in" (31.6) (see Table A48).

The amount that is paid each month for content also shows differences by what is liked best about the phone, the highest proportion of heaviest spenders (over ¥1000 per month) being associated with "expands my social life" (37.3 / 23.3) and "helps me fit in" (32.3 / 23.3) (see Table A49). Other categories associated with heavier spending are "keeps me informed" (¥501-1000: 20.1 / 15.9; > ¥1000: 28.8 / 23.3) and "passes time" (¥250-500: 34.5 / 32.0; > ¥1000: 26.0 / 23.3). Those who like best that the phone helps them keep in touch had lower than average spending (< ¥250: 31.6 / 28.8; ¥250-500:35.2 / 32.0; > ¥1000: 17.7 / 23.3).

Summary

Looking at the size and regularity of departures from average in cross-tabulations of content, usage and payment questions with what people like best about their phones, it appears that "like best" is at least as good a differentiator of MobileNet consumer behavior as time of day or location. This affective response also yields insights that are quite intuitive. Communication content has its highest primary usage among those who appreciate their phones' convenience and ability to help them keep in touch with others. Primary use of news and entertainment is associated with those who appreciate the ability to stay informed via their phones and those like the phone for passing time. Ringtones are also especially popular for those who pass time with their phones. The high primary access of ringtones by those who say the phone expands social life underscores the social role of ringtones. Ringtones are less popular than average with those who use the phone for convenience and communication. Heavier usage of the MobileNet is associated with categories other than communication and convenience, such as "passes time," "keeps me informed" and "expands social life." The same is true of payment for content, which is most common for "passes time," "keeps me informed" and "helps me fit in." This pattern follows through to how much is spent for content, with higher spending levels being associated with "passes time," "keeps me informed," "expands social life" and "helps me fit in." In general, greater use of the MobileNet and greater use of the non-email content of the MobileNet are strongly associated with those who look to their phones for information and

entertainment, and those for whom the phone has a social function or meaning other than simple communication.

CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

Examining consumer usage of the MobileNet from the perspective of time and location yields surprisingly few meaningful results. There are certainly differences in content choice, usage rate and payment for content by meta- and micro-location, as the overwhelming majority of interactions between such variables are statistically significant. The surprise is that such consistently statistically significant results contain so few useful generalizations. Generalization proved difficult because usage is so similar over different parts of the day and different locations. This is due in part to the overwhelming predominance of email/chat as primary content. We suggest that future researchers use separate questions to investigate the "non-web" aspects of the MobileNet (email/chat) and more world-wide-web-like content (e.g. news, entertainment, shopping).

Even with the limitationstat heavy email/chat response placed on survey analysis, it was not difficult to find generalizable insights in cross-tabulations involving the survey's lone affective question. We feel this is the most important result of the survey. As academic and business researchers delve deeper into MobileNet consumer behavior, they should look past the popular notion that the consumer's location in time and space is a major determinant of behavior. It is time to look seriously into affective components of MobileNet usage. This is true not only from an academic perspective, but from a business perspective as well. If one wants to affect how people use the MobileNet, or use the MobileNet as a marketing tool, it is critical to understand the basic drivers of MobileNet use. It appears quite likely that time and location are not the primary influences on usage that some have suggested. This research leads us to suspect that psychological or psychographic factors may be more important, such as need for information, need for belonging, or need for individual identity.

Other factors that could be having a large influence are related to motivation. For example, one possible motivational factor, in keeping with Mehrabian and Russell (1974) and Bitner (1992), could be "location embrace," or the desire to either learn more about or interact more completely with one's surroundings through the MobileNet, versus "location escape," in this case a mental escape via the MobileNet. Taking into account such a mediating factor might even increase the explanatory power of location in MobileNet consumer behavior. There may also be motivations that serve as mediating factors relative to time. For example, an important aspect of usage could be productivity in time use, with some access such as entertainment or games being passive, consumptive use of time and other access representing active, productive time use (e.g. making appointments, contacting friends or associates).

Marketers must move away from the view of the MobileNet as a tiny ever-present billboard and learn what it is that people want from the MobileNet. The overwhelming popularity of email would suggest the MobileNet will be a communication platform more than anything else. Content that enables, enhances, or replaces current communication tools will probably have the greatest chance of success. If marketers want to move beyond this limited area, they need to gain a clear understanding of the context of MobileNet usage. That context, however, is not just location and time of day. It is an intricate interaction of time and place with personal psychological and motivational factors, as well as technological factors such as network and device capabilities. This context, unfortunately, remains largely unexplored.

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APPENDIX: STATISTICAL TABLES

Many of the following statistical tables are cross-tabulations of response frequencies to pairs of questions. These tables are displayed in three parts. The first shows column percentages, allowing results for the question that makes up the rows of the table to be interpreted versus the overall or "marginal" frequencies for that variable. The second section of the table shows row percentages, allowing interpretation of results versus the marginal distribution for the rows. The third shows actual and expected cell percentages. Expected cell percentages are the product of the marginal distributions of the two sets of responses.

For each interaction table, the statistical significance of the overall interaction is noted in a footnote. The meaningfulness of differences between actual and expected cell percentages are also represented, meaningful cells being shown with a bold font. If the actual and expected frequencies for a cell are both five or less, the results are deemed to be unreliable and the cell is ignored. Such cells are shown with a grey italic font. Our criterion for a meaningful departure from expected frequency is based on the "cell chi-square" value,[18] the number of cells in the cross-tabulation, and the chi-square statistic for the overall interaction (a statistical indicator of interaction strength). We divide the 5 percent (p = .05) chi-square value for the table by the number of cells, yielding an "average 5 percent significance level," a number that is generally between 1.00 and 1.05. Comparing the cell chi-square value to this average chi-square value gives an indication of the cell's importance in a statistical sense. Stated simply, if all of the cells in the cross-tabulation met the average 5 percent cutoff level, the overall interaction would be statistically significant at the 5 percent level.[19] As an example, in the interaction of daily usage and age, the cross-tabulation of seven usage rates and six age brackets yields (7*6 =) 42 cells. The corresponding 5 percent level for the chi-square statistic with ((7-1)*(6-1) =) 30 degrees of freedom is 43.773. Thus, any cell with a "cell chi-square" value greater than (43.773 / 42 =) 1.042 is highlighted as a meaningful departure from expectation and is shown in bold.

Percentages in each table are based on the number of valid responses to the corresponding survey questions. The number of observations (N) or the number of missing observations is noted in each table. The total number of observations (including missing) is 13,892 unless otherwise noted.

[18]Cell chi-square is computed as (frequency - expected)^2 / expected.

[19]Of course, the interaction can be significant without all cells being meaningful as long as the departures from expectations for the remaining cells are large enough.

TABLE A1
Respondent Demographics

	N	Percent
Gender		
Female	3933	28.31
Male	9959	71.69
Age		
Under 20	676	4.87
20-24	1751	12.60
25-29	3227	23.23
30-34	3459	24.90
35-39	2517	18.12
40 or older	2262	16.28
Occupation		
Not employed	3282	23.63
Engineer	3037	21.86
Clerical	1350	9.72
Professional	1067	7.68
Vocational	635	4.57
Business owner	524	3.77
Manager	473	3.40
Sales/marketing	331	2.38
Teacher	234	1.68
Manufacturing	225	1.62
Executive	211	1.52
Other	2523	18.16

TABLE A2
"Content I Access the Most"

Content	N[1]	Percent
Email/Chat	9595	75.69
Ringtone/Picture	660	5.21
News/Information	503	3.97
Traffic/Transportation	371	2.93
Entertainment	278	2.19
Weather	202	1.59
Banking/Trading	180	1.42
Townpages/Local info	63	0.50
Shopping	36	0.28
Other	788	6.22

[1]Missing = 1216.

TABLE A3
Pay Extra for Content

Pay for content	N[1]	Percent
Yes	3314	25.77
No	7892	61.38
Don't know	1652	12.85

[1]Missing = 1034.

TABLE A4
Monthly Spending for Content

Yen/month	N[1]	Percent
Less than 250	1032	29.15
250-500	1128	31.86
501-1000	561	15.85
Over 1000	819	23.14

[1]Do not pay for content = 7892; Missing = 2460.

TABLE A5
"The Thing I Like Best About My Mobile Phone"

Attribute	N[1]	Percent
Convenient	6024	46.93
Keeps me in touch	3851	30.00
Helps me pass time	1371	10.68
Keeps me informed	482	3.76
Saves me time/energy	181	1.41
Expands my social life	166	1.29
Helps me fit in	96	0.75
Gives me independence	15	0.12
Other	649	5.06

[1]Missing = 1057.

TABLE A6
Usage Proportion by Day-Part

	0%	> 0% ≤ 20%	> 20% ≤ 40%	> 40% ≤ 60%	> 60% ≤ 80%	> 80% < 100%	100%	Mean (std. err.)	Std. Dev.	N
Late Night/Early Morning (0:00-6:00)										
Overall	66.59	18.24	10.11	3.29	0.54	0.64	0.59	6.96 (0.16)	14.92	8941
Gender										
Female	64.26	16.68	11.64	4.26	0.86	1.52	0.78	8.74 (0.35)	17.77	2560
Male	67.53	18.87	9.50	2.90	0.41	0.28	0.52	6.25 (0.17)	13.54	6381
Age										
Under 20	53.69	20.94	13.30	8.37	0.74	0.99	1.97	12.02 (1.02)	20.55	406
20-24	52.45	23.47	16.77	4.73	0.77	1.20	0.60	10.19 (0.49)	16.88	1163
25-29	63.05	19.62	12.07	3.26	0.49	1.07	0.44	7.68 (0.34)	15.44	2054
30-34	71.73	14.92	9.05	3.05	0.49	0.40	0.36	5.86 (0.29)	13.50	2232
35-39	71.22	18.06	6.56	2.56	0.60	0.36	0.66	5.65 (0.34)	13.84	1678
40 or older	73.51	16.62	6.75	1.92	0.36	0.14	0.71	5.12 (0.34)	12.94	1408
Morning (6:00-12:00)										
Overall	24.42	16.91	34.77	19.86	1.39	1.02	1.63	23.05 (0.22)	21.05	8941
Gender										
Female	26.68	19.65	34.10	16.25	1.52	0.86	0.94	20.64 (0.39)	19.92	2560
Male	23.51	15.81	35.04	21.31	1.33	1.08	1.91	24.01 (0.27)	21.41	6381
Age										
Under 20	24.14	19.95	38.67	15.27	1.48	0.25	0.25	20.18 (0.87)	17.61	406
20-24	20.55	19.78	40.84	16.25	0.95	0.69	0.95	21.53 (0.54)	18.45	1163
25-29	24.83	18.35	36.17	17.23	1.36	0.68	1.36	21.76 (0.44)	20.14	2054
30-34	28.32	15.01	32.03	20.56	1.21	1.03	1.84	22.71 (0.46)	21.86	2232
35-39	22.17	15.44	33.91	24.02	1.97	1.13	1.37	24.92 (0.52)	21.13	1678
40 or older	23.58	16.24	31.96	21.95	1.35	1.85	2.98	25.32 (0.62)	23.38	1408
Afternoon (12:00-18:00)										
Overall	15.22	10.11	34.53	30.06	4.61	1.76	3.71	32.01 (0.25)	23.62	8941
Gender										
Female	14.77	13.13	35.23	26.80	4.61	2.15	3.32	30.87 (0.47)	23.60	2560
Male	15.41	8.9	34.24	31.37	4.61	1.60	3.87	32.46 (0.30)	23.61	6381
Age										
Under 20	8.13	12.56	37.93	32.27	5.17	1.72	2.22	32.86 (1.03)	20.84	406
20-24	9.97	11.18	42.82	17.60	4.04	1.55	2.84	31.74 (0.63)	21.40	1163
25-29	15.87	12.17	37.68	26.19	3.55	1.12	3.41	29.80 (0.50)	22.81	2054
30-34	19.35	9.86	30.60	30.33	4.48	1.79	3.58	30.90 (0.52)	24.43	2232
35-39	13.83	9.36	32.84	32.48	5.48	2.15	3.87	23.76 (0.58)	23.75	1678
40 or older	15.77	6.82	30.33	33.81	5.61	2.34	5.33	34.87 (0.68)	25.34	1408
Evening (18:00-24:00)										
Overall	14.95	7.89	27.85	29.10	7.96	4.32	7.93	37.98 (0.30)	28.48	8941
Gender										
Female	12.77	8.20	26.13	30.59	9.26	5.47	7.58	39.75 (0.56)	28.37	2560
Male	15.83	7.76	28.54	28.51	7.44	3.86	8.07	37.27 (0.36)	28.50	6381
Age										
Under 20	13.55	8.13	34.98	26.35	8.13	5.67	3.20	34.94 (1.26)	25.31	406
20-24	10.83	8.08	32.50	33.71	6.71	3.78	4.39	36.54 (0.72)	24.69	1163
25-29	11.54	7.11	26.24	32.72	9.64	5.45	7.30	40.76 (0.60)	27.38	2054
30-34	15.86	7.12	25.36	27.37	8.51	3.81	11.96	40.53 (0.66)	31.02	2232
35-39	17.16	9.36	27.83	26.88	8.28	3.87	6.62	35.67 (0.69)	28.17	1678
40 or older	19.67	8.24	28.27	26.21	5.26	4.05	8.31	34.70 (0.78)	29.31	1408

TABLE A7
Usage Proportion by Meta-Location

	0%	> 0% ≤ 20%	> 20% ≤ 40%	> 40% ≤ 60%	> 60% ≤ 80%	> 80% < 100%	100%	Mean (std. err.)	Std. Dev.	N
Home										
Overall	28.40	27.25	13.25	15.08	6.35	3.44	6.24	29.42 (0.35)	31.45	8003
Gender										
Female	17.38	21.90	13.34	18.87	10.71	7.15	10.66	42.11 (0.72)	34.54	2279
Male	32.79	29.39	13.21	13.57	4.61	1.96	4.47	24.36 (0.38)	28.61	5724
Age										
Under 20	17.69	20.11	19.30	19.57	10.46	5.63	7.24	39.16 (1.02)	32.06	373
20-24	19.79	26.17	20.36	17.41	8.18	3.81	4.28	33.15 (0.49)	29.26	1051
25-29	26.47	29.52	12.71	17.28	5.62	3.47	4.94	28.76 (0.34)	30.18	1904
30-34	30.30	15.10	12.03	13.91	6.49	3.61	8.56	30.80 (0.29)	33.53	2020
35-39	31.54	28.50	11.87	14.01	4.55	3.31	6.21	26.77 (0.33)	30.95	1449
40 or older	35.32	28.94	9.70	11.44	6.55	2.24	5.80	25.02 (0.34)	30.96	1206
Work/School										
Overall	30.94	23.57	16.17	14.99	6.39	2.61	5.34	28.63 (0.34)	30.36	8003
Gender										
Female	43.57	24.09	12.77	11.23	4.17	1.84	2.33	20.00 (0.55)	26.37	2279
Male	25.91	23.36	17.52	16.49	7.27	2.92	6.53	32.06 (0.41)	31.16	5724
Age										
Under 20	26.81	30.29	18.50	12.60	6.17	2.14	3.49	26.92 (0.87)	27.53	373
20-24	21.03	31.68	20.93	15.70	5.33	2.00	3.33	28.17 (0.54)	26.72	1051
25-29	31.72	25.89	15.49	14.76	5.99	2.57	3.57	26.45 (0.44)	28.79	1904
30-34	36.44	20.69	15.74	13.51	6.09	2.18	5.35	26.66 (0.46)	30.34	2020
35-39	30.99	19.12	15.53	16.49	6.97	3.52	7.38	31.82 (0.52)	32.51	1449
40 or older	30.35	20.90	13.85	16.17	7.79	2.99	7.96	32.44 (0.62)	33.20	1206
Commute										
Overall	44.1	25.39	12.22	9.27	3.87	1.41	3.74	19.81 (0.30)	27.23	8003
Gender										
Female	49.85	24.27	10.31	8.60	3.12	1.01	2.85	16.83 (0.53)	25.35	2279
Male	41.81	25.84	12.98	9.54	4.18	1.57	4.09	21.00 (0.37)	27.85	5724
Age										
Under 20	42.90	34.05	11.53	7.77	0.80	1.07	1.88	15.35 (1.03)	21.92	373
20-24	36.44	31.97	14.56	10.09	4.19	0.76	2.00	19.59 (0.63)	24.57	1051
25-29	41.49	23.27	12.92	12.08	4.25	1.79	4.20	22.29 (0.50)	28.54	1904
30-34	46.73	22.23	12.43	9.06	3.71	0.94	4.90	20.08 (0.52)	28.20	2020
35-39	48.72	21.33	12.01	7.52	4.42	2.28	3.73	19.45 (0.58)	28.11	1449
40 or older	45.27	30.51	9.20	7.05	3.57	1.24	3.15	17.45 (0.68)	25.64	1206
Leisure										
Overall	34.62	32.70	13.99	8.90	3.24	1.37	5.17	22.14 (0.31)	27.86	8003
Gender										
Female	34.49	33.92	13.69	9.48	3.16	1.23	4.04	21.06 (0.56)	26.62	2279
Male	34.68	32.22	14.12	8.67	3.27	1.43	5.63	22.57 (0.37)	28.33	5724
Age										
Under 20	33.24	41.29	13.67	5.09	2.68	0.54	3.49	18.56 (1.26)	23.98	373
20-24	31.02	39.39	17.03	6.47	2.95	0.10	3.04	19.06 (0.72)	23.27	1051
25-29	31.99	34.14	15.28	9.19	3.10	1.37	4.94	22.48 (0.60)	27.40	1904
30-34	37.13	29.50	13.56	9.90	3.02	1.44	5.45	22.45 (0.66)	28.43	2020
35-39	36.92	29.61	13.80	10.01	3.24	1.24	5.18	21.95 (0.69)	28.12	1449
40 or older	35.41	31.01	10.36	8.71	4.23	2.82	7.46	25.10 (0.78)	31.54	1206

TABLE A8
Interaction[1] of 'Daily Usage' and 'Gender'

Column Percentages

Minutes/day	Female	Male	Overall
Less than 5	**48.28**	**56.07**	53.85
5-10	**22.06**	**19.86**	20.49
10-20	**13.78**	**9.88**	10.99
20-30	**8.20**	**5.74**	6.44
30-60	4.68	4.25	4.37
60-90	1.27	1.44	1.39
Over 90	**1.72**	**2.76**	2.46
N	3780	9487	13267

Row Percentages

Minutes/day	Female	Male	N
Less than 5	**25.55**	**74.45**	7144
5-10	**30.68**	**69.32**	2718
10-20	**35.73**	**64.27**	1458
20-30	**36.26**	**63.74**	855
30-60	30.52	69.48	580
60-90	25.95	74.05	185
Over 90	**19.88**	**80.12**	327
Overall	28.49	71.51	13267

Actual and Expected Cell Percentages

	Female		Male	
Minutes/day	Act.	Exp.	Act.	Exp.
Less than 5	**13.76**	**15.34**	**40.09**	**38.51**
5-10	**6.29**	**5.84**	**14.20**	**14.65**
10-20	**3.93**	**3.13**	**7.06**	**7.86**
20-30	**2.34**	**1.84**	**4.11**	**4.61**
30-60	1.33	1.25	3.04	3.13
60-90	0.36	0.40	1.03	1.00
Over 90	**0.49**	**0.70**	**1.97**	**1.76**

[1]Significant at p < .0001.

TABLE A9
Interaction[1] of 'Content' and 'Gender'

Column Percentages

Content	Female	Male	Overall
Email/chat	**78.26**	**74.67**	75.69
Ringtone/Picture	**7.39**	**4.34**	5.21
News/information	**2.05**	**4.73**	3.97
Traffic/Transportation	**1.99**	**3.30**	2.93
Entertainment	**2.58**	**2.04**	2.19
Weather	**0.58**	**2.00**	1.59
Banking/trading	**0.86**	**1.64**	1.42
Townpages/Local info	**0.36**	0.55	0.50
Shopping	0.25	0.30	0.28
Other	**5.68**	6.43	6.22
N	3611	9065	12676

Row Percentages

Content	Female	Male	N
Email/chat	**29.45**	**70.55**	9595
Ringtone/picture	**40.45**	**59.55**	660
News/information	**14.71**	**85.29**	503
Traffic/Transportation	**19.41**	**80.59**	371
Entertainment	**33.45**	**66.55**	278
Weather	**10.40**	**89.60**	202
Banking/trading	**17.22**	**82.78**	180
Townpages/Local info	**20.63**	79.37	63
Shopping	25.00	75.00	36
Other	**26.02**	73.98	788
Overall	28.49	71.51	12676

Actual and Expected Cell Percentages

	Female		Male	
Content	Act.	Exp.	Act.	Exp.
Email/Chat	**22.29**	**21.56**	**53.40**	**54.13**
Ringtone/Picture	**2.11**	**1.48**	**3.10**	**3.72**
News/Information	**0.58**	**1.13**	**3.38**	**2.84**
Traffic/Transportation	**0.57**	**0.83**	**2.36**	**2.09**
Entertainment	**0.73**	**0.62**	**1.46**	**1.57**
Weather	**0.17**	**0.45**	**1.43**	**1.14**
Banking/Trading	**0.24**	**0.40**	**1.18**	**1.02**
Townpages/Local Info	**0.10**	**0.14**	0.39	0.36
Shopping	0.07	0.08	0.21	0.20
Other	**1.62**	**1.77**	4.60	4.45

[1]Significant at p < .0001.

TABLE A10
Interaction[1] of 'Pay Extra for Content' and 'Gender'

Column Percentages

Pay for content	Female	Male	Overall
Yes	26.03	25.67	25.77
No	**57.52**	**62.91**	61.38
Don't know	**16.44**	**11.42**	12.85
N	3649	9209	12858

Row Percentages

Pay for content	Female	Male	N
Yes	28.67	71.33	3314
No	**26.60**	**73.40**	7892
Don't know	**36.32**	**63.68**	1652
Overall	28.38	71.62	12858

Actual and Expected Cell Percentages

	Female		Male	
Pay for content	Act.	Exp.	Act.	Exp.
Yes	7.39	7.31	18.39	18.46
No	**16.32**	**17.42**	**45.05**	**43.96**
Don't know	**4.67**	**3.65**	**8.18**	**9.20**

[1]Significant at p < .0001. Significant at p = .0247 when "Don't know" responses are treated as missing.

TABLE A11
Interaction[1] of 'Monthly Spending for Content' and 'Gender'

Column Percentages

Yen/month	Female	Male	Overall
Less than 250	**25.57**	**30.46**	29.07
250-500	**35.52**	**30.46**	31.90
501-1000	**18.71**	**14.74**	15.87
Over 1000	**20.20**	**24.34**	23.16
N	1005	2531	3536

Row Percentages

Yen/month	Female	Male	N
Less than 250	**25.00**	**75.00**	1028
250-500	**31.65**	**68.35**	1128
501-1000	**33.51**	**66.49**	561
Over 1000	**24.79**	**75.21**	819
Overall	28.42	71.58	3536

Actual and Expected Cell Percentages

	Female		Male	
Yen/month	Act.	Exp.	Act.	Exp.
Less than 250	**7.27**	**8.26**	**21.80**	**20.81**
250-500	**10.10**	**9.07**	**21.80**	**22.83**
501-1000	**5.32**	**4.51**	**10.55**	**11.36**
Over 1000	**5.74**	**6.58**	**17.42**	**16.58**

[1]Significant at p < .0001. Do not pay for content = 7892; Missing = 2460.

TABLE A12
Interaction[1] of 'Like Best' and 'Gender'

Column Percentages

Like best	Female	Male	Overall
Convenient	46.16	47.24	46.93
Keep in touch	**31.50**	**29.41**	30.00
Pass time	**11.71**	**10.28**	10.68
Keep informed	**2.88**	**4.10**	3.76
Save time/energy	1.59	1.34	1.41
Expand social life	**0.90**	**1.45**	1.29
Helps me fit in	0.74	0.75	0.75
Gives independence	*0.03*	0.15	0.12
Other	**4.50**	5.28	5.06
N	3648	9187	12835

Row Percentages

Like best	Female	Male	N
Convenient	27.95	72.05	6024
Keep in touch	**29.84**	**70.16**	3851
Pass time	**31.15**	**68.85**	1371
Keep informed	**21.78**	**78.22**	482
Save time/energy	32.04	67.96	181
Expand social life	**19.88**	**80.12**	166
Helps me fit in	28.13	71.88	96
Gives independence	*6.67*	93.33	15
Other	**25.27**	74.73	649
Overall	28.42	71.58	12835

Actual and Expected Cell Percentages

	Female		Male	
Like best	Act.	Exp.	Act.	Exp.
Convenient	13.12	13.34	33.81	33.59
Keep in touch	**8.95**	**8.53**	**21.05**	**21.48**
Pass time	**3.33**	**3.04**	**7.35**	**7.65**
Keep informed	**0.82**	**1.07**	**2.94**	**2.69**
Save time/energy	0.45	0.40	0.96	1.01
Expand social life	**0.26**	**0.37**	**1.04**	**0.93**
Helps me fit in	0.21	0.21	0.54	0.54
Gives independence	*0.01*	*0.03*	0.11	0.08
Other	**1.28**	**1.44**	3.78	3.62

[1]Significant at p < .0001.

TABLE A13
Interaction[1] of 'Daily Usage' and 'Age'

Column Percentages

Minutes/day	Under 20	20-24	25-29	30-34	35-39	40 or older	Overall
Less than 5	**44.84**	**50.41**	52.72	**56.77**	53.79	**56.60**	53.85
5-10	21.26	**19.19**	**21.42**	21.08	21.05	**18.33**	20.49
10-20	**14.48**	**12.19**	**11.60**	10.60	**9.56**	**10.24**	10.99
20-30	6.63	**8.28**	**7.38**	**5.15**	6.29	**5.69**	6.44
30-60	**6.32**	**5.66**	**3.52**	**3.60**	3.98	**5.65**	4.37
60-90	**2.93**	1.40	**2.05**	**1.03**	**0.88**	**1.10**	1.39
Over 90	**3.54**	**2.86**	**1.31**	**1.76**	**4.44**	2.39	2.46
N	649	1714	3128	3301	2385	2090	13267

Row Percentages

Minutes/day	Under 20	20-24	25-29	30-34	35-39	40 or older	N
Less than 5	**4.07**	**12.09**	23.08	**26.23**	17.96	**16.56**	7144
5-10	5.08	**12.10**	**24.65**	25.61	18.47	**14.09**	2718
10-20	**6.45**	**14.33**	**24.90**	24.01	**15.64**	**14.68**	1458
20-30	5.03	**16.61**	**27.02**	**19.88**	17.54	**13.92**	855
30-60	**7.07**	**16.72**	**18.97**	**20.52**	16.38	**20.34**	580
60-90	**10.27**	12.97	**34.59**	**18.38**	**11.35**	**12.43**	185
Over 90	**7.03**	**14.98**	**12.54**	**17.74**	**32.42**	15.29	327
Overall	4.89	12.92	23.58	24.88	17.98	15.75	13267

Actual and Expected Cell Percentages

	Under 20		20-24		25-29		30-34		34-39		40 or older	
Minutes/day	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Less than 5	**2.19**	**2.63**	**6.51**	**6.96**	12.43	12.70	**14.13**	**13.40**	9.67	9.68	**8.92**	**8.48**
5-10	1.04	1.00	**2.48**	**2.65**	**5.05**	**4.83**	5.25	5.10	3.78	3.68	**2.89**	**3.23**
10-20	**0.71**	**0.54**	**1.58**	**1.42**	**2.74**	**2.59**	2.64	2.73	**1.72**	**1.98**	**1.61**	**1.73**
20-30	0.32	0.32	**1.07**	**0.83**	**1.74**	**1.52**	**1.28**	**1.60**	1.13	1.16	**0.90**	**1.02**
30-60	**0.31**	**0.21**	**0.73**	**0.56**	**0.83**	**1.03**	**0.90**	**1.09**	0.72	0.79	**0.89**	**0.69**
60-90	**0.14**	**0.07**	0.18	0.18	**0.48**	**0.33**	**0.26**	**0.35**	**0.16**	**0.25**	**0.17**	**0.22**
Over 90	**0.17**	**0.12**	**0.37**	**0.32**	**0.31**	**0.58**	**0.44**	**0.61**	**0.80**	**0.44**	0.38	0.39

[1]Significant at $p < .0001$.

TABLE A14
Interaction[1] of 'Content' and 'Age'

Column Percentages

Content	Under 20	20-24	25-29	30-34	35-39	40 or older	Overall
Email/Chat	**68.95**	73.93	**72.90**	**78.91**	76.88	76.90	75.69
Ringtone/Picture	**14.05**	**7.10**	**5.70**	**4.47**	**3.76**	**3.02**	5.21
News/Information	3.43	**3.24**	**4.36**	**3.35**	**4.69**	4.33	3.97
Traffic/Transportation	2.45	**3.73**	**3.58**	**2.47**	2.61	**2.52**	2.93
Entertainment	2.29	**2.63**	**2.85**	**1.91**	2.17	**1.31**	2.19
Weather	**0.82**	**2.02**	1.54	**1.13**	**2.21**	1.61	1.59
Banking/Trading	**0.49**	**0.67**	**1.14**	1.56	**1.15**	**2.82**	1.42
Townpages/Local info	*0.16*	0.49	0.54	**0.28**	0.49	**0.91**	0.50
Shopping	*0.33*	**0.67**	0.23	**0.16**	**0.40**	**0.10**	0.28
Other	7.03	**5.51**	**7.17**	**5.76**	**5.66**	6.49	6.22
N	612	1634	2985	3196	2262	1987	12676

Row Percentages

Content	Under 20	20-24	25-29	30-34	35-39	40 or older	N
Email/Chat	**4.40**	12.59	**22.68**	**26.28**	18.12	15.92	9595
Ringtone/Picture	**13.03**	**17.58**	**25.76**	**21.67**	**12.88**	**9.09**	660
News/Information	4.17	**10.54**	**25.84**	**21.27**	**21.07**	17.10	503
Traffic/Transportation	4.04	**16.44**	**28.84**	**21.29**	15.90	**13.48**	371
Entertainment	5.04	**15.47**	**30.58**	**21.94**	17.63	**9.35**	278
Weather	**2.48**	**16.34**	22.77	**17.82**	**24.75**	15.84	202
Banking/Trading	**1.67**	**6.11**	**18.89**	27.78	**14.44**	**31.11**	180
Townpages/Local info	*1.59*	12.70	25.40	**14.29**	17.46	**28.57**	63
Shopping	*5.56*	**30.56**	19.44	**13.89**	**25.00**	**5.56**	36
Other	5.46	**11.42**	**27.16**	**23.35**	**16.24**	16.37	788
Overall	4.83	12.89	23.55	25.21	17.84	15.68	12676

Actual and Expected Cell Percentages

	Under 20		20-24		25-29		30-34		35-39		40 or older	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	**3.33**	**3.65**	9.53	9.76	**17.17**	**17.82**	**19.90**	**19.08**	13.72	13.51	12.05	11.87
Ringtone/Picture	**0.68**	**0.25**	**0.92**	**0.67**	**1.34**	**1.23**	**1.13**	**1.31**	**0.67**	**0.93**	**0.47**	**0.82**
News/Information	0.17	0.19	**0.42**	**0.51**	**1.03**	**0.93**	**0.84**	**1.00**	**0.84**	**0.71**	0.68	0.62
Traffic/Transportation	0.12	0.14	**0.48**	**0.38**	**0.84**	**0.69**	**0.62**	**0.74**	0.47	0.52	**0.39**	**0.46**
Entertainment	0.11	0.11	**0.34**	**0.28**	**0.67**	**0.52**	**0.48**	**0.55**	0.39	0.39	**0.21**	**0.34**
Weather	**0.04**	**0.08**	**0.26**	**0.21**	0.36	0.38	**0.28**	**0.40**	**0.39**	**0.28**	0.25	0.25
Banking/Trading	**0.02**	**0.07**	**0.09**	**0.18**	**0.27**	**0.33**	0.39	0.36	**0.21**	**0.25**	**0.44**	**0.22**
Townpages/Local Info	*0.01*	*0.02*	0.06	0.06	0.13	0.12	**0.07**	**0.13**	0.09	0.09	**0.14**	**0.08**
Shopping	*0.02*	*0.01*	**0.09**	**0.04**	0.06	0.07	**0.04**	**0.07**	**0.07**	**0.05**	**0.02**	**0.04**
Other	0.34	0.30	**0.71**	**0.80**	**1.69**	**1.46**	**1.45**	**1.57**	**1.01**	**1.11**	1.02	0.97

[1]Significant at $p < .0001$.

TABLE A15
Interaction[1] of 'Pay Extra for Content' and 'Age'

Column Percentages

Pay for content	Under 20	20-24	25-29	30-34	35-39	40 or older	Overall
Yes	**29.47**	**27.05**	**27.54**	**22.74**	26.21	25.33	25.77
No	**54.27**	62.91	60.30	**63.32**	61.53	60.66	61.38
Don't know	**16.26**	**10.04**	**12.16**	**13.94**	12.26	**14.01**	12.85
N	621	1634	3010	3236	2308	2049	12858

Row Percentages

Pay for content	Under 20	20-24	25-29	30-34	35-39	40 or older	N
Yes	**5.52**	**13.34**	**25.02**	**22.21**	18.26	15.66	3314
No	**4.27**	13.03	23.00	**25.96**	17.99	15.75	7892
Don't know	**6.11**	**9.93**	**22.15**	**27.30**	17.13	**17.37**	1652
Overall	4.83	12.71	23.41	25.17	17.95	15.94	12858

Actual and Expected Cell Percentages

	Under 20		20-24		25-29		30-34		35-39		40 or older	
Pay for content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Yes	**1.42**	**1.24**	**3.44**	**3.28**	**6.45**	**6.03**	**5.72**	**6.49**	4.71	4.63	4.04	4.11
No	**2.62**	**2.96**	8.00	7.80	14.12	14.37	**15.94**	**15.45**	11.04	11.02	9.67	9.78
Don't know	**0.79**	**0.62**	**1.28**	**1.63**	**2.85**	**3.01**	**3.51**	**3.23**	2.20	2.31	**2.23**	**2.05**

[1]Significant at $p < .0001$.

TABLE A16
Interaction[1] of 'Monthly Spending for Content' and 'Age'

Column Percentages

Yen/month	Under 20	20-24	25-29	30-34	35-39	40 or older	Overall
Less than 250	28.79	29.53	28.06	30.46	27.03	30.72	29.07
250-500	30.81	33.62	31.96	30.96	34.06	29.67	31.90
501-1000	**19.19**	**18.75**	**18.21**	16.75	14.53	**9.08**	15.87
Over 1000	21.21	**18.10**	21.76	21.83	24.38	**30.54**	23.16
N	198	464	873	788	640	573	3536

Row Percentages

Yen/month	Under 20	20-24	25-29	30-34	35-39	40 or older	N
Less than 250	5.54	13.33	23.83	23.35	16.83	17.12	1028
250-500	5.41	13.83	24.73	21.63	19.33	15.07	1128
501-1000	**6.77**	**15.51**	**28.34**	23.53	16.58	**9.27**	561
Over 1000	5.13	**10.26**	23.20	21.00	19.05	**21.37**	819
Overall	5.60	13.12	24.69	22.29	18.10	16.20	3536

Actual and Expected Cell Percentages

	Under 20		20-24		25-29		30-34		35-39		40 or older	
Yen/month	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Less than 250	1.61	1.63	3.87	3.81	6.93	7.18	6.79	6.48	4.89	5.26	4.98	4.71
250-500	1.73	1.79	4.41	4.19	7.89	7.88	6.90	7.11	6.17	5.77	4.81	5.17
501-1000	**1.07**	**0.89**	**2.46**	**2.08**	**4.50**	**3.92**	3.73	3.54	2.63	2.87	**1.47**	**2.57**
Over 1000	1.19	1.30	**2.38**	**3.04**	5.37	5.72	4.86	5.16	4.41	4.19	**4.95**	**3.75**

[1]Significant at $p < .0001$. Do not pay for content = 7892; Missing = 2460.

TABLE A17
Interaction[1] of 'Like Best' and 'Age'

Column Percentages

Like best	Under 20	20-24	25-29	30-34	35-39	40 or older	Overall
Convenient	**38.61**	**42.09**	**43.88**	**45.69**	**52.88**	**53.05**	46.93
Keep in touch	**25.53**	30.37	**27.91**	**32.92**	**28.83**	30.87	30.00
Pass time	**20.36**	**16.01**	**13.87**	**9.42**	**6.59**	**5.42**	10.68
Keep informed	3.55	3.56	**4.19**	**3.38**	**4.25**	3.37	3.76
Save time/energy	1.45	1.47	**1.83**	1.39	**1.08**	**1.12**	1.41
Expand social life	0.97	1.29	1.50	1.30	1.17	1.22	1.29
Helps me fit in	**2.91**	0.92	0.70	0.62	0.65	**0.34**	0.75
Gives independence	*0.32*	*0.06*	*0.17*	*0.06*	*0.09*	*0.15*	0.12
Other	**6.30**	**4.23**	**5.95**	5.21	**4.46**	**4.45**	5.06
N	619	1630	3006	3226	2307	2047	12835

Row Percentages

Like best	Under 20	20-24	25-29	30-34	35-39	40 or older	N
Convenient	**3.97**	**11.39**	**21.90**	**24.47**	**20.25**	**18.03**	6024
Keep in touch	**4.10**	12.85	**21.79**	**27.58**	**17.27**	16.41	3851
Pass time	**9.19**	**19.04**	**30.42**	**22.17**	**11.09**	**8.10**	1371
Keep informed	4.56	12.03	**26.14**	**22.61**	**20.33**	14.32	482
Save time/energy	4.97	13.26	**30.39**	24.86	**13.81**	**12.71**	181
Expand social life	3.61	12.65	27.11	25.30	16.27	15.06	166
Helps me fit in	**18.75**	15.63	21.88	20.83	15.63	**7.29**	96
Gives independence	*13.33*	*6.67*	*33.33*	*13.33*	*13.33*	*20.00*	15
Other	**6.01**	**10.63**	**27.58**	25.89	**15.87**	**14.02**	649
Overall	4.82	12.70	23.42	25.13	17.97	15.95	12835

Actual and Expected Cell Percentages

	Under 20		20-24		25-29		30-34		35-39		40 or older	
Like best	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Convenient	**1.86**	**2.26**	**5.34**	**5.96**	**10.28**	**10.99**	**11.48**	**11.80**	**9.51**	**8.44**	**8.46**	**7.49**
Keep in touch	**1.23**	**1.45**	3.86	3.81	**6.54**	**7.03**	**8.27**	**7.54**	**5.18**	**5.39**	4.92	4.79
Pass time	**0.98**	**0.52**	**2.03**	**1.36**	**3.25**	**2.50**	**2.37**	**2.68**	**1.18**	**1.92**	**0.86**	**1.70**
Keep informed	0.17	0.18	0.45	0.48	**0.98**	**0.88**	**0.85**	**0.94**	**0.76**	**0.67**	0.54	0.60
Save time/energy	0.07	0.07	0.19	0.18	**0.43**	**0.33**	0.35	0.35	**0.19**	**0.25**	**0.18**	**0.22**
Expand social life	0.05	0.06	0.16	0.16	0.35	0.30	0.33	0.33	0.21	0.23	0.19	0.21
Helps me fit in	**0.14**	**0.04**	0.12	0.09	0.16	0.18	0.16	0.19	0.12	0.13	**0.05**	**0.12**
Gives independence	*0.02*	*0.01*	*0.01*	*0.01*	*0.04*	*0.03*	*0.02*	*0.03*	*0.02*	*0.02*	*0.02*	*0.02*
Other	**0.30**	**0.24**	**0.54**	**0.64**	**1.39**	**1.18**	1.31	1.27	**0.80**	**0.91**	**0.71**	**0.81**

[1]Significant at $p < .0001$.

TABLE A18
Home Meta-Location[1]

	N	Percent
Primary Location[2]		
Living/Dining room	1113	49.89
Bedroom	789	35.37
Bathroom	53	2.38
Kitchen	34	1.52
Other	242	10.85
Primary Day-Part[2]		
Late night/early morning (0:00-6:00)	148	6.51
Morning (6:00-12:00)	171	7.52
Afternoon (12:00-18:00)	390	17.15
Evening (18:00-24:00)	1565	68.82
Primary Content[3]		
Email/Chat	1785	80.12
Ringtone/Picture	181	8.12
News/Information	53	2.38
Traffic/Transportation	28	1.26
Entertainment	71	3.19
Weather	29	1.30
Banking/Trading	18	0.81
Townpages/Local info	9	0.40
Shopping	2	0.09
Other	52	2.33
Other Internet Access Available[4]		
Yes	1046	44.68
No	1189	50.79
Don't know	106	4.53

[1]"Place at home where I access the MobileNet the most." Do not use MobileNet at home = 825.
[2]Missing = 245.
[3]Missing = 248.
[4]Missing = 960.

TABLE A19
Work/School Meta-Location[1]

	N	Percent
Location[2]		
Desk/Workspace	1100	44.95
Break room	566	23.13
Outside	308	12.59
Hall	135	5.52
Restroom	91	3.72
Cafeteria	52	2.13
Other	195	7.97
Primary Day-Part[3]		
Late night/early morning (0:00-6:00)	78	3.22
Morning (6:00-12:00)	301	12.42
Afternoon (12:00-18:00)	1504	62.05
Evening (18:00-24:00)	541	22.32
Primary Content[4]		
Email/Chat	1972	79.04
Ringtone/Picture	67	2.69
News/Information	87	3.49
Traffic/Transportation	59	2.36
Entertainment	49	1.96
Weather	36	1.44
Banking/Trading	40	1.60
Townpages/Local info	10	0.40
Shopping	5	0.20
Other	170	6.81
Other Internet Access Available[5]		
Yes	891	34.67
No	1587	61.75
Don't know	92	3.58

[1]"Place at work/school where I access the MobileNet the most." Do not use MobileNet at work/school = 781.
[2]Missing = 300.
[3]Missing = 323.
[4]Missing = 252.
[5]Missing = 958.

TABLE A20
Commute Meta-Location[1]

	N	Percent
Location[2]		
Train/Subway	677	30.44
Waiting to board	482	21.67
Walking	413	18.57
Car	330	14.84
Bus	52	2.34
Bicycle	47	2.11
Shinkansen	16	0.72
Taxi	8	0.36
Other	199	8.95
Primary Day-Part[3]		
Late night/early morning (0:00-6:00)	69	3.20
Morning (6:00-12:00)	423	19.63
Afternoon (12:00-18:00)	705	32.71
Evening (18:00-24:00)	958	44.45
Primary Content[4]		
Email/Chat	1723	76.71
Ringtone/Picture	95	4.23
News/Information	87	3.87
Traffic/Transportation	84	3.74
Entertainment	43	1.91
Weather	39	1.74
Banking/Trading	33	1.47
Townpages/Local info	6	0.27
Shopping	8	0.36
Other	128	5.70
Other Internet Access Available[5]		
Yes	606	25.89
No	1642	70.14
Don't know	93	3.97

[1]"Place during commute where I access the MobileNet the most." Do not use MobileNet during commute = 999.
[2]Missing = 321.
[3]Missing = 390.
[4]Missing = 299.
[5]Missing = 1203.

TABLE A21
Leisure Meta-Location[1]

	N	Percent
Location[2]		
Sitting outdoors	1102	48.02
Restaurant	452	19.69
Park	55	2.40
Bookstore	48	2.09
Bar/Club	27	1.18
Library	17	0.74
Other	594	25.88
Primary Day-Part[3]		
Late night/early morning (0:00-6:00)	59	2.61
Morning (6:00-12:00)	212	9.39
Afternoon (12:00-18:00)	1078	47.74
Evening (18:00-24:00)	909	40.26
Primary Content[4]		
Email/Chat	1685	73.81
Ringtone/Picture	92	4.03
News/Information	105	4.60
Traffic/Transportation	116	5.08
Entertainment	70	3.07
Weather	50	2.19
Banking/Trading	34	1.49
Townpages/Local info	27	1.18
Shopping	8	0.35
Other	96	4.20
Other Internet Access Available[5]		
Yes	671	27.29
No	1681	68.36
Don't know	107	4.35

[1]"Leisure location (other than home) where I access the MobileNet the most." Do not use MobileNet in leisure locations = 897.
[2]Missing = 327.
[3]Missing = 364.
[4]Missing = 339.
[5]Missing = 1060.

TABLE A22
Interaction[1] of 'Day-Part' and 'Home Micro-Location'

Column Percentages

Day-part	Living/ dining room	Bedroom	Bathroom	Kitchen	Other	Overall
Late night/early morning	**3.19**	**9.20**	**11.32**	**18.75**	**9.09**	6.37
Morning	7.74	**4.73**	**24.53**	**25.00**	7.36	7.28
Afternoon	**20.04**	**11.24**	20.75	12.50	**19.91**	16.80
Evening	69.03	**74.84**	**43.40**	**43.75**	**63.64**	69.55
N	1098	783	53	32	231	2197

Row Percentages

Day-part	Living/ dining room	Bedroom	Bathroom	Kitchen	Other	N
Late night/early morning	**25.00**	**51.43**	**4.29**	**4.29**	**15.00**	140
Morning	53.13	**23.13**	**8.13**	**5.00**	10.63	160
Afternoon	**59.62**	**23.85**	2.98	1.08	**12.47**	369
Evening	49.61	**38.35**	**1.51**	**0.92**	**9.62**	1528
Overall	49.98	35.64	2.41	1.46	10.51	2197

Actual and Expected Cell Percentages

	Living/ dining room		Bedroom		Bathroom		Kitchen		Other	
Day-part	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Late night/early morning	**1.59**	**3.18**	**3.28**	**2.27**	**0.27**	**0.15**	**0.27**	**0.09**	**0.96**	**0.67**
Morning	3.87	3.64	**1.68**	**2.60**	**0.59**	**0.18**	**0.36**	**0.11**	0.77	0.77
Afternoon	**10.01**	**8.39**	**4.01**	**5.99**	0.50	0.41	0.18	0.24	**2.09**	**1.77**
Evening	34.50	34.76	**26.67**	**24.79**	**1.05**	**1.68**	**0.64**	**1.01**	**6.69**	**7.31**

[1]Significant at $p < .0001$. Do not use MobileNet at home = 825; Missing = 279.

TABLE A23
Interaction[1] of 'Day-Part' and 'Work/School Micro-Location'

Column Percentages

Day-part	Desk/ Workspace	Break room	Outside	Hall	Restroom	Cafeteria	Other	Overall
Late night/ early morning	3.36	2.88	**0.34**	*0.79*	*2.22*	*0.00*	**9.94**	3.10
Morning	**14.57**	**9.91**	10.88	11.81	**17.78**	**2.00**	13.45	12.64
Afternoon	61.81	**67.03**	61.22	66.93	68.89	**90.00**	**47.37**	63.06
Evening	20.26	20.18	**27.55**	20.47	**11.11**	**8.00**	**29.24**	21.20
N	1071	555	294	127	90	50	171	2358

Row Percentages

Day-part	Desk/ Workspace	Break room	Outside	Hall	Restroom	Cafeteria	Other	N
Late night/ early morning	49.32	21.92	**1.37**	*1.37*	*2.74*	*0.00*	**23.29**	73
Morning	**52.35**	**18.46**	10.74	5.03	**5.37**	**0.34**	7.72	298
Afternoon	44.52	**25.02**	12.10	5.72	4.17	**3.03**	**5.45**	1487
Evening	43.40	22.40	**16.20**	5.20	**2.00**	**0.80**	**10.00**	500
Overall	45.42	23.54	12.47	5.39	3.82	2.12	7.25	2358

Actual and Expected Cell Percentages

	Desk/ Workspace		Break room		Outside		Hall		Restroom		Cafeteria		Other	
Day-part	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Late night/ early morning	1.53	1.41	0.68	0.73	**0.04**	**0.39**	*0.04*	*0.17*	*0.08*	*0.12*	*0.00*	*0.07*	**0.72**	**0.22**
Morning	**6.62**	**5.74**	**2.33**	**2.97**	1.36	1.58	0.64	0.68	**0.68**	**0.48**	**0.04**	**0.27**	0.98	0.92
Afternoon	28.07	28.64	**15.78**	**14.84**	7.63	7.86	3.60	3.40	2.63	2.41	**1.91**	**1.34**	**3.44**	**4.57**
Evening	9.20	9.63	4.75	4.99	**3.44**	**2.64**	1.10	1.14	**0.42**	**0.81**	**0.17**	**0.45**	**2.12**	**1.54**

[1]Significant at $p < .0001$. Do not use MobileNet at work/school = 781; Missing = 389.

TABLE A24
Interaction[1] of 'Day-Part' and 'Commute Micro-Location'

Column Percentages

Day-part	Train/ Subway	Waiting to board	Walking	Car	Bus	Bicycle	*Shinkan-sen*	Taxi	Other	Overall
Late night/ early morning	**1.49**	2.52	**5.51**	2.52	*1.92*	*4.44*	*0.00*	*0.00*	**8.28**	3.15
Morning	**23.21**	18.03	**16.29**	**23.34**	21.15	20.00	*6.67*	*25.00*	**11.72**	19.77
Afternoon	**24.85**	**28.72**	**38.35**	**44.48**	30.77	33.33	46.67	*50.00*	35.86	32.49
Evening	**50.45**	**50.73**	**39.85**	**29.65**	46.15	42.22	46.67	*25.00*	44.14	44.60
N	672	477	399	317	52	45	15	8	145	2130

Row Percentages

Day-part	Train/ Subway	Waiting to board	Walking	Car	Bus	Bicycle	*Shinkan-sen*	Taxi	Other	N
Late night/ early morning	**14.93**	17.91	**32.84**	11.94	*1.49*	*2.99*	*0.00*	*0.00*	**17.91**	67
Morning	**37.05**	20.43	**15.44**	**17.58**	2.61	2.14	*0.24*	*0.48*	**4.04**	421
Afternoon	**24.13**	**19.80**	**22.11**	**20.38**	2.31	2.17	1.01	*0.58*	7.51	692
Evening	**35.68**	**25.47**	**16.74**	**9.89**	2.53	2.00	0.74	*0.21*	**6.74**	950
Overall	31.55	22.39	18.73	14.88	2.44	2.11	0.70	0.38	6.81	2130

Actual and Expected Cell Percentages

	Train/ Subway		Waiting to board		Walking		Car		Bus		Bicycle		*Shinkansen*		Taxi		Other	
Day-part	Act.	Exp	Act.	Exp	Act.	Exp	Act.	Exp	Act.	Exp	Act.	Exp	Act.	Exp	Act.	Exp	Act.	Exp
Late night/ early morn	**0.47**	**0.99**	0.56	0.70	**1.03**	**0.59**	0.38	0.47	*0.05*	*0.08*	*0.09*	*0.07*	*0.00*	*0.02*	*0.00*	*0.01*	**0.56**	**0.21**
Morning	**7.32**	**6.24**	4.04	4.43	**3.05**	**3.70**	**3.47**	**2.94**	0.52	0.48	0.42	0.42	*0.05*	*0.14*	*0.09*	*0.07*	**0.80**	**1.35**
Afternoon	**7.84**	**10.25**	**6.43**	**7.28**	**7.18**	**6.09**	**6.62**	**4.84**	0.75	0.79	0.70	0.69	0.33	0.23	*0.19*	*0.12*	2.44	2.21
Evening	**15.92**	**14.07**	**11.36**	**9.99**	**7.46**	**8.35**	**4.41**	**6.64**	1.13	1.09	0.89	0.94	0.33	0.31	*0.09*	*0.17*	**3.00**	**3.04**

[1]Significant at $p < .0001$. Do not use MobileNet during commute = 999 Missing = 415.

TABLE A25
Interaction[1] of 'Day-Part' and 'Leisure Micro-Location'

Column Percentages

Day-part	Sitting outdoors	Restaurant	Park	Bookstore	Bar/Club	Library	Other	Overall
Late night/ early morning	**1.37**	**1.33**	*0.00*	**18.75**	*7.41*	*5.88*	**4.35**	2.54
Morning	9.62	**4.42**	12.73	**18.75**	*3.70*	*23.53*	**11.59**	9.36
Afternoon	**51.83**	**53.32**	**60.00**	**29.17**	**0.00**	41.18	**38.41**	47.84
Evening	**37.18**	40.93	**27.27**	33.33	**88.89**	29.41	**45.65**	40.26
N	1092	452	55	48	27	17	552	2243

Row Percentages

Day-part	Sitting outdoors	Restaurant	Park	Bookstore	Bar/Club	Library	Other	N
Late night/ early morning	**26.32**	**10.53**	*0.00*	**15.79**	*3.51*	*1.75*	**42.11**	57
Morning	50.00	**9.52**	3.33	**4.29**	*0.48*	*1.90*	**30.48**	210
Afternoon	**52.75**	**22.46**	**3.08**	**1.30**	**0.00**	0.65	**19.76**	1073
Evening	**44.96**	20.49	**1.66**	1.77	**2.66**	0.55	**27.91**	903
Overall	48.68	20.15	2.45	2.14	1.20	0.76	24.61	2243

Actual and Expected Cell Percentages

	Sitting outdoors		Restaurant		Park		Bookstore		Bar/Club		Library		Other	
Day-part	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Late night/ early morning	**0.67**	**1.24**	**0.27**	**0.51**	*0.00*	*0.06*	**0.40**	**0.05**	*0.09*	*0.03*	*0.04*	*0.02*	**1.07**	**0.63**
Morning	4.68	4.56	**0.89**	**1.89**	0.31	0.23	**0.40**	**0.20**	*0.04*	*0.11*	*0.18*	*0.07*	**2.85**	**2.30**
Afternoon	**25.23**	**23.29**	**10.74**	**9.64**	**1.47**	**1.17**	**0.62**	**1.02**	**0.00**	**0.58**	0.31	0.36	**9.45**	**11.77**
Evening	**18.10**	**19.60**	8.25	8.11	**0.67**	**0.99**	0.71	0.86	**1.07**	**0.48**	0.22	0.31	**11.23**	**9.91**

[1]Significant at $p < .0001$. Do not use MobileNet in leisure locations = 897; Missing = 379.

TABLE A26
Interaction[1] of 'Content' and 'Home Micro-Location'

Column Percentages

Content	Living/ dining room	Bedroom	Bathroom	Kitchen	Other	Overall
Email/Chat	82.19	78.63	67.92	82.35	77.50	80.08
Ringtone/Picture	7.32	**9.92**	**13.21**	*2.94*	**5.42**	8.11
News/Information	2.44	2.93	*1.89*	*0.00*	**0.83**	2.39
Traffic/Transportation	1.27	0.89	*1.89*	*8.82*	*1.25*	1.26
Entertainment	2.71	**4.33**	*3.77*	*2.94*	**1.67**	3.20
Weather	1.08	1.40	*5.66*	*0.00*	*1.25*	1.31
Banking/Trading	0.99	0.51	*0.00*	*0.00*	*1.25*	0.81
Townpages/Local info	*0.27*	*0.13*	*1.89*	*2.94*	*1.25*	0.41
Shopping	*0.00*	*0.00*	*1.89*	*0.00*	*0.42*	0.09
Other	**1.72**	**1.27**	*1.89*	*0.00*	**9.17**	2.34
N	1106	786	53	34	240	2219

Row Percentages

Content	Living/ dining room	Bedroom	Bathroom	Kitchen	Other	N
Email/Chat	51.15	34.78	2.03	1.58	10.47	1777
Ringtone/Picture	45.00	**43.33**	**3.89**	0.56	**7.22**	180
News/Information	50.94	43.40	*1.89*	*0.00*	**3.77**	53
Traffic/Transportation	50.00	25.00	*3.57*	*10.71*	*10.71*	28
Entertainment	42.25	**47.89**	*2.82*	*1.41*	**5.63**	71
Weather	41.38	37.93	*10.34*	*0.00*	*10.34*	29
Banking/Trading	61.11	22.22	*0.00*	*0.00*	*16.67*	18
Townpages/Local info	*33.33*	*11.11*	*11.11*	*11.11*	*33.33*	9
Shopping	*0.00*	*0.00*	*50.00*	*0.00*	*50.00*	2
Other	**36.54**	**19.23**	*1.92*	*0.00*	**42.31**	52
Overall	49.84	35.42	2.39	1.53	10.82	2219

Actual and Expected Cell Percentages

	Living/ dining room		Bedroom		Bathroom		Kitchen		Other	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	40.96	39.91	27.85	28.37	1.62	1.91	1.26	1.23	8.38	8.66
Ringtone/Picture	3.65	4.04	**3.52**	**2.87**	**0.32**	**0.19**	*0.05*	*0.12*	**0.59**	**0.88**
News/Information	1.22	1.19	1.04	0.85	*0.05*	*0.06*	*0.00*	*0.04*	**0.09**	**0.26**
Traffic/Transportation	0.63	0.63	0.32	0.45	*0.05*	*0.03*	*0.14*	*0.02*	*0.14*	*0.14*
Entertainment	1.35	1.59	**1.53**	**1.13**	*0.09*	*0.08*	*0.05*	*0.05*	**0.18**	**0.35**
Weather	0.54	0.65	0.50	0.46	*0.14*	*0.03*	*0.00*	*0.02*	*0.14*	*0.14*
Banking/Trading	0.50	0.40	0.18	0.29	*0.00*	*0.02*	*0.00*	*0.01*	*0.14*	*0.09*
Townpages/Local info	*0.14*	*0.20*	*0.05*	*0.14*	*0.05*	*0.01*	*0.05*	*0.01*	*0.14*	*0.04*
Shopping	*0.00*	*0.04*	*0.00*	*0.03*	*0.05*	*0.00*	*0.00*	*0.00*	*0.05*	*0.01*
Other	**0.86**	**1.17**	**0.45**	**0.83**	*0.05*	*0.06*	*0.00*	*0.04*	**0.99**	**0.25**

[1]Significant at $p < .0001$. Do not use MobileNet at home = 825; Missing = 257.

TABLE A27
Interaction[1] of 'Content' and 'Work/School Micro-Location'

Column Percentages

Content	Desk/ Workspace	Break room	Outside	Hall	Restroom	Cafeteria	Other	Overall
Email/Chat	**84.28**	83.93	79.87	78.63	**63.74**	72.55	**63.44**	80.71
Ringtone/Picture	**2.11**	2.86	2.01	*2.29*	*4.40*	*5.88*	**4.30**	2.62
News/Information	3.13	**4.46**	3.02	*2.29*	**10.99**	1.96	**2.15**	3.58
Traffic/Transportation	2.30	**1.07**	**3.69**	*3.82*	*2.20*	*5.88*	*2.69*	2.37
Entertainment	1.65	2.50	1.34	*2.29*	*4.40*	*5.88*	*1.08*	2.00
Weather	1.19	1.07	*1.34*	*2.29*	*2.20*	*1.96*	*2.15*	1.37
Banking/Trading	**1.19**	1.61	**3.02**	*0.76*	*4.40*	*0.00*	*2.15*	1.66
Townpages/Local info	*0.18*	*0.36*	*0.67*	*0.76*	*1.10*	*0.00*	*0.54*	0.37
Shopping	*0.00*	*0.36*	*0.34*	*0.00*	*1.10*	*0.00*	*0.54*	0.21
Other	**3.95**	**1.79**	4.70	6.87	*5.49*	*5.88*	**20.97**	5.11
N	1088	560	298	131	91	51	185	2405

Row Percentages

Content	Desk/ Workspace	Break room	Outside	Hall	Restroom	Cafeteria	Other	N
Email/Chat	**47.24**	24.21	12.26	5.31	**2.99**	1.91	**6.08**	1941
Ringtone/Picture	**36.51**	25.40	9.52	*4.76*	*6.35*	*4.76*	**12.70**	63
News/Information	39.53	**29.07**	10.47	*3.49*	**11.63**	1.16	**4.65**	86
Traffic/Transportation	43.86	**10.53**	**19.30**	*8.77*	*3.51*	5.26	*8.77*	57
Entertainment	37.50	29.17	8.33	*6.25*	*8.33*	6.25	*4.17*	48
Weather	39.39	18.18	*12.12*	*9.09*	*6.06*	3.03	*12.12*	33
Banking/Trading	**32.50**	22.50	**22.50**	*2.50*	*10.00*	0.00	*10.00*	40
Townpages/Local info	*22.22*	*22.22*	*22.22*	*11.11*	*11.11*	*0.00*	*11.11*	9
Shopping	*0.00*	*40.00*	*20.00*	*0.00*	*20.00*	*0.00*	*20.00*	5
Other	**34.96**	**8.13**	11.38	7.32	*4.07*	*2.44*	**31.71**	123
Overall	45.24	23.28	12.39	5.45	3.78	2.12	7.73	2405

Actual and Expected Cell Percentages

	Desk/ Workspace		Break room		Outside		Hall		Restroom		Cafeteria		Other	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	**38.13**	**36.51**	19.54	18.79	9.90	10.00	4.28	4.40	**2.41**	**3.05**	1.54	1.71	**4.91**	**6.24**
Ringtone/ Picture	**0.96**	**1.19**	0.67	0.61	0.25	0.32	*0.12*	*0.14*	*0.17*	*0.10*	*0.12*	*0.06*	**0.33**	**0.20**
News/ Info	1.41	1.62	**1.04**	**0.83**	0.37	0.44	*0.12*	*0.19*	**0.42**	**0.14**	0.04	0.08	**0.17**	**0.28**
Traffic/ Transport	1.04	1.07	**0.25**	**0.55**	**0.46**	**0.30**	*0.21*	*0.13*	*0.08*	*0.09*	*0.12*	*0.05*	*0.21*	*0.18*
Entertain	0.75	0.90	0.58	0.46	0.17	0.25	*0.12*	*0.11*	*0.17*	*0.08*	*0.12*	*0.04*	*0.08*	*0.15*
Weather	0.54	0.62	0.25	0.32	*0.17*	*0.17*	*0.12*	*0.07*	*0.08*	*0.05*	*0.04*	*0.03*	*0.17*	*0.11*
Banking/ Trading	**0.54**	**0.75**	0.37	0.39	**0.37**	**0.21**	*0.04*	*0.09*	*0.17*	*0.06*	*0.00*	*0.04*	*0.17*	*0.13*
Townpages/ Local info	*0.08*	*0.17*	*0.08*	*0.09*	*0.08*	*0.05*	*0.04*	*0.02*	*0.04*	*0.01*	*0.00*	*0.01*	*0.04*	*0.03*
Shopping	*0.00*	*0.09*	*0.08*	*0.05*	*0.04*	*0.03*	*0.00*	*0.01*	*0.04*	*0.01*	*0.00*	*0.00*	*0.04*	*0.02*
Other	**1.79**	**2.31**	**0.42**	**1.19**	0.58	0.63	0.37	0.28	*0.21*	*0.19*	*0.12*	*0.11*	**1.62**	**0.40**

[1]Significant at $p < .0001$. Do not use MobileNet at work/school = 781; Missing = 342.

TABLE A28
Interaction[1] of 'Content' and 'Commute Micro-Location'

Column Percentages

Content	Train/ Subway	Waiting to board	Walking	Car	Bus	Bicycle	*Shinkan-sen*	Taxi	Other	Overall
Email/Chat	75.70	80.21	79.80	**81.31**	72.55	68.09	57.14	62.50	**55.00**	76.17
Ringtone/Picture	**1.48**	**2.92**	1.72	1.56	*1.96*	*4.26*	*0.00*	*0.00*	**4.44**	2.15
News/Information	**7.26**	4.17	5.67	**1.87**	*3.92*	*2.13*	*7.14*	*12.50*	**0.56**	4.77
Traffic/Transportation	**6.07**	5.42	**3.45**	**2.18**	*5.88*	*8.51*	*21.43*	*0.00*	**1.67**	4.63
Entertainment	**3.26**	2.29	2.46	**0.93**	*3.92*	*4.26*	*0.00*	*0.00*	*1.11*	2.38
Weather	1.04	**0.83**	**2.22**	**2.80**	*1.96*	*2.13*	*0.00*	*0.00*	*0.56*	1.47
Banking/Trading	0.74	*1.04*	*0.74*	**1.87**	*3.92*	*0.00*	*0.00*	*0.00*	*0.56*	1.01
Townpages/Local info	*0.30*	*0.63*	*0.00*	*0.31*	*0.00*	*0.00*	*7.14*	*12.50*	*0.56*	0.41
Shopping	*0.00*	*0.21*	*0.00*	*0.31*	*1.96*	*0.00*	*0.00*	*0.00*	*0.00*	0.14
Other	**4.15**	**2.29**	**3.94**	6.85	*3.92*	*10.64*	*7.14*	*12.50*	**35.56**	6.87
N	675	480	406	321	51	47	14	8	180	2182

Row Percentages

Content	Train/ Subway	Waiting	Walking	Car	Bus	Bicycle	*Shinkan-sen*	Taxi	Other	N
Email/Chat	30.75	23.16	19.49	**15.70**	2.23	1.93	0.48	0.30	**5.96**	1662
Ringtone/Picture	**21.28**	**29.79**	14.89	10.64	*2.13*	*4.26*	*0.00*	*0.00*	**17.02**	47
News/Information	**47.12**	19.23	22.12	**5.77**	*1.92*	*0.96*	*0.96*	*0.96*	**0.96**	104
Traffic/Transportation	**40.59**	25.74	**13.86**	**6.93**	*2.97*	*3.96*	*2.97*	*0.00*	**2.97**	101
Entertainment	**42.31**	21.15	19.23	**5.77**	*3.85*	*3.85*	*0.00*	*0.00*	*3.85*	52
Weather	21.88	**12.50**	**28.13**	**28.13**	*3.13*	*3.13*	*0.00*	*0.00*	*3.13*	32
Banking/Trading	22.73	*22.73*	*13.64*	**27.27**	*9.09*	*0.00*	*0.00*	*0.00*	*4.55*	22
Townpages/Local info	*22.22*	*33.33*	*0.00*	*11.11*	*0.00*	*0.00*	*11.11*	*11.11*	*11.11*	9
Shopping	*0.00*	*33.33*	*0.00*	*33.33*	*33.33*	*0.00*	*0.00*	*0.00*	*0.00*	3
Other	**18.67**	**7.33**	**10.67**	14.67	*1.33*	*3.33*	*0.67*	*0.67*	**42.67**	150
Overall	30.93	22.00	18.61	14.71	2.34	2.15	0.64	0.37	8.25	2182

Actual and Expected Cell Percentages

	Train/ Subway		Waiting to board		Walking		Car		Bus		Bicycle		*Shinkansen*		Taxi		Other	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	23.42	23.56	17.64	16.76	14.85	14.17	**11.96**	**11.21**	1.70	1.78	1.47	1.64	0.37	0.49	0.23	0.28	**4.54**	**6.28**
Ringtone/ Picture	**0.46**	**0.67**	**0.64**	**0.47**	0.32	0.40	0.23	0.32	*0.05*	*0.05*	*0.09*	*0.05*	*0.00*	*0.01*	*0.00*	*0.01*	**0.37**	**0.18**
News/ Info	**2.25**	**1.47**	0.92	1.05	1.05	0.89	**0.28**	**0.70**	*0.09*	*0.11*	*0.05*	*0.10*	*0.05*	*0.03*	*0.05*	*0.02*	**0.05**	**0.39**
Traffic/ Transport.	**1.88**	**1.43**	1.19	1.02	**0.64**	**0.86**	**0.32**	**0.68**	*0.14*	*0.11*	*0.18*	*0.10*	*0.14*	*0.03*	*0.00*	*0.02*	**0.14**	**0.38**
Entertain.	**1.01**	**0.74**	0.50	0.52	0.46	0.44	**0.14**	**0.35**	*0.09*	*0.06*	*0.09*	*0.05*	*0.00*	*0.02*	*0.00*	*0.01*	*0.09*	*0.20*
Weather	0.32	0.45	**0.18**	**0.32**	**0.41**	**0.27**	**0.41**	**0.22**	*0.05*	*0.03*	*0.05*	*0.03*	*0.00*	*0.01*	*0.00*	*0.01*	*0.05*	*0.12*
Banking/ Trading	0.23	0.31	0.23	0.22	0.14	0.19	**0.28**	**0.15**	*0.09*	*0.02*	*0.00*	*0.02*	*0.00*	*0.01*	*0.00*	*0.00*	*0.05*	*0.08*
Townpgs/ Local info	*0.09*	*0.13*	*0.14*	*0.09*	*0.00*	*0.08*	*0.05*	*0.06*	*0.00*	*0.01*	*0.00*	*0.01*	*0.05*	*0.00*	*0.05*	*0.00*	*0.05*	*0.03*
Shopping	*0.00*	*0.04*	*0.05*	*0.03*	*0.00*	*0.03*	*0.05*	*0.02*	*0.05*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*
Other	**1.28**	**2.13**	**0.50**	**1.51**	**0.73**	**1.28**	1.01	1.01	*0.09*	*0.16*	*0.23*	*0.15*	*0.05*	*0.04*	*0.05*	*0.03*	**2.93**	**0.57**

[1]Significant at $p < .0001$. Do not use MobileNet during commute = 999; Missing =363.

TABLE A29
Interaction[1] of 'Content' and 'Leisure Micro-Location'

Column Percentages

Content	Sitting outdoors	Restaurant	Park	Bookstore	Bar/Club	Library	Other	Overall
Email/Chat	75.60	79.33	67.27	76.60	80.77	64.71	**66.55**	73.83
Ringtone/Picture	**3.03**	3.11	*3.64*	*2.13*	*0.00*	*5.88*	**6.76**	3.98
News/Information	4.40	6.89	*3.64*	*2.13*	*3.85*	*5.88*	**3.64**	4.64
Traffic/Transportation	**7.16**	**2.67**	*3.64*	*2.13*	*0.00*	*0.00*	**3.81**	5.08
Entertainment	**2.48**	**4.00**	*5.45*	*6.38*	*7.69*	*0.00*	2.95	3.09
Weather	2.57	**0.67**	*7.27*	*0.00*	*0.00*	*11.76*	2.25	2.21
Banking/Trading	1.38	**0.89**	*0.00*	*2.13*	*3.85*	*5.88*	**2.08**	1.50
Townpages/Local info	1.47	**0.67**	*3.64*	*2.13*	*0.00*	*0.00*	0.87	1.19
Shopping	*0.18*	*0.00*	*1.82*	*2.13*	*0.00*	*0.00*	*0.69*	0.35
Other	**1.74**	**1.78**	*3.64*	*4.26*	*3.85*	*5.88*	**10.40**	4.11
N	1090	450	55	47	26	17	577	2262

Row Percentages

Content	Sitting outdoors	Restaurant	Park	Bookstore	Bar/Club	Library	Other	N
Email/Chat	49.34	21.38	2.22	2.16	1.26	0.66	**22.99**	1670
Ringtone/Picture	**36.67**	15.56	*2.22*	*1.11*	*0.00*	*1.11*	**43.33**	90
News/Information	45.71	29.52	*1.90*	*0.95*	*0.95*	*0.95*	**20.00**	105
Traffic/Transportation	**67.83**	**10.43**	*1.74*	*0.87*	*0.00*	*0.00*	**19.13**	115
Entertainment	**38.57**	**25.71**	*4.29*	*4.29*	*2.86*	*0.00*	24.29	70
Weather	56.00	**6.00**	*8.00*	*0.00*	*0.00*	*4.00*	26.00	50
Banking/Trading	44.12	**11.76**	*0.00*	*2.94*	*2.94*	*2.94*	**35.29**	34
Townpages/Local info	59.26	**11.11**	*7.41*	*3.70*	*0.00*	*0.00*	18.52	27
Shopping	*25.00*	*0.00*	*12.50*	*12.50*	*0.00*	*0.00*	*50.00*	8
Other	**20.43**	**8.60**	*2.15*	*2.15*	*1.08*	*1.08*	**64.52**	93
Overall	48.19	19.89	2.43	2.08	1.15	0.75	25.51	2262

Actual and Expected Cell Percentages

	Sitting outdoors		Restaurant		Park		Bookstore		Bar/Club		Library		Other	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	36.43	35.58	15.78	14.69	1.64	1.80	1.59	1.53	0.93	0.85	0.49	0.55	**16.98**	**18.83**
Ringtone/ Picture	**1.46**	**1.92**	0.62	0.79	*0.09*	*0.10*	*0.04*	*0.08*	*0.00*	*0.05*	*0.04*	*0.03*	**1.72**	**1.01**
News/ Info	2.12	2.24	1.37	0.92	*0.09*	*0.11*	*0.04*	*0.10*	*0.04*	*0.05*	*0.04*	*0.03*	**0.93**	**1.18**
Traffic/ Transport	**3.45**	**2.45**	**0.53**	**1.01**	*0.09*	*0.12*	*0.04*	*0.11*	*0.00*	*0.06*	*0.00*	*0.04*	**0.97**	**1.30**
Entertain	**1.19**	**1.49**	**0.80**	**0.62**	*0.13*	*0.08*	*0.13*	*0.06*	*0.09*	*0.04*	*0.00*	*0.02*	0.75	0.79
Weather	1.24	1.07	**0.13**	**0.44**	*0.18*	*0.05*	*0.00*	*0.05*	*0.00*	*0.03*	*0.09*	*0.02*	0.57	0.56
Banking/ Trading	0.66	0.72	**0.18**	**0.30**	*0.00*	*0.04*	*0.04*	*0.03*	*0.04*	*0.02*	*0.04*	*0.01*	**0.53**	**0.38**
Townpages/ Local info	0.71	0.58	**0.13**	**0.24**	*0.09*	*0.03*	*0.04*	*0.02*	*0.00*	*0.01*	*0.00*	*0.01*	0.22	0.30
Shopping	*0.09*	*0.17*	*0.00*	*0.07*	*0.04*	*0.01*	*0.04*	*0.01*	*0.00*	*0.00*	*0.00*	*0.00*	*0.18*	*0.09*
Other	**0.84**	**1.98**	**0.35**	**0.82**	*0.09*	*0.10*	*0.09*	*0.09*	*0.04*	*0.05*	*0.04*	*0.03*	**2.65**	**1.05**

[1]Significant at $p < .0001$. Do not use MobileNet in leisure locations = 897; Missing = 360.

TABLE A30
Interaction[1] of 'Availability of Other Internet Access' and 'Home Micro-Location'

Column Percentages

Other Internet access available	Living/ dining room	Bedroom	Bathroom	Kitchen	Other	Overall
Yes	46.38	44.43	33.96	44.12	49.79	45.73
No	50.27	52.50	56.60	47.06	43.51	50.43
Don't know	45.53	28.24	*9.43*	*8.82*	18.82	3.84
N	1104	781	53	34	239	2211

Row Percentages

Other Internet access available	Living/ dining room	Bedroom	Bathroom	Kitchen	Other	N
Yes	50.64	34.32	1.78	1.48	11.77	1011
No	49.78	36.77	2.69	1.43	9.33	1115
Don't know	43.53	28.24	*5.88*	*3.53*	18.82	85
Overall	49.93	35.32	2.40	1.54	10.81	2211

Actual and Expected Cell Percentages

Other Internet access available	Linving/ dining room		Bedroom		Bathroom		Kitchen		Other	
	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Yes	23.16	22.83	15.69	16.15	0.81	1.10	0.68	0.70	5.38	4.94
No	25.10	25.18	18.54	17.81	1.36	1.21	0.72	0.78	4.70	5.45
Don't know	1.67	1.92	1.09	1.36	*0.23*	*0.09*	*0.14*	*0.06*	0.72	0.42

[1]Significant at p = .0114. Not significant at p = .05 when "Don't know" responses are treated as missing. Do not use MobileNet at home = 825; Missing = 265.

TABLE A31
Interaction[1] of 'Availability of Other Internet Access Primary Work/School Micro-Location'

Column Percentages

Other Internet access available	Desk/ Workspace	Break room	Outside	Hall	Restroom	Cafeteria	Other	Overall
Yes	**42.39**	**31.55**	**29.51**	**27.48**	31.87	**13.73**	**31.22**	35.59
No	**55.52**	**66.49**	**67.87**	**68.70**	65.93	**86.27**	59.79	61.69
Don't know	**2.10**	**1.96**	**2.62**	*3.82*	*2.20*	*0.00*	**8.99**	2.72
N	1097	561	305	131	91	51	189	2425

Row Percentages

Other Internet access available	Desk/ Workspace	Break room	Outside	Hall	Restroom	Cafeteria	Other	N
Yes	**53.88**	**20.51**	**10.43**	**4.17**	3.36	**0.81**	**6.84**	863
No	**40.71**	**24.93**	**13.84**	**6.02**	4.01	**2.94**	7.55	1469
Don't know	**34.85**	**16.67**	**12.12**	*7.58*	*3.03*	*0.00*	**25.76**	66
Overall	45.24	23.13	12.58	5.40	3.75	2.10	7.79	2425

Actual and Expected Cell Percentages

Other Internet access available	Desk/ Workspace		Break room		Outside		Hall		Restroom		Cafeteria		Other	
	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Yes	**19.18**	**16.10**	**7.30**	**8.23**	**3.71**	**4.48**	**1.48**	**1.92**	1.20	1.34	**0.29**	**0.75**	**2.43**	**2.77**
No	**25.11**	**27.91**	**15.38**	**14.27**	**8.54**	**7.76**	**3.71**	**3.33**	2.47	2.31	**1.81**	**1.30**	4.66	4.81
Don't know	**0.95**	**1.23**	**0.45**	**0.63**	**0.33**	**0.34**	*0.21*	*0.15*	*0.08*	*0.10*	*0.00*	*0.06*	**0.70**	**0.21**

[1]Significant at p < .0001 whether or not "Don't know" responses are treated as missing. Do not use MobileNet at work/school = 781; Missing = 322.

TABLE A32
Interaction[1] of 'Availability of Other Internet Access' and 'Commute Micro-Location'

Column Percentages

Other Internet access available	Train/ Subway	Waiting to board	Walking	Car	Bus	Bicycle	*Shinkan-sen*	Taxi	Other	Overall
Yes	25.71	28.45	22.25	30.56	25.00	17.02	46.67	*25.00*	24.31	26.20
No	72.07	70.50	72.86	67.90	73.08	70.21	46.67	75.00	66.85	70.64
Don't know	2.23	1.05	4.89	1.54	*1.92*	12.77	*6.67*	*0.00*	8.84	3.15
N	673	478	409	324	52	47	15	8	181	2187

Row Percentages

Other Internet access available	Train/ Subway	Waiting to board	Walking	Car	Bus	Bicycle	*Shinkan-sen*	Taxi	Other	N
Yes	30.19	23.73	15.88	17.28	2.27	1.40	1.22	*0.35*	7.68	1033
No	31.39	21.81	19.29	14.24	2.46	2.14	0.45	0.39	7.83	1164
Don't know	21.74	7.25	28.99	7.25	*1.45*	8.70	*1.45*	*0.00*	23.19	105
Overall	30.77	21.86	18.7	14.81	2.38	2.15	0.69	0.37	8.28	2187

Actual and Expected Cell Percentages

Other access	Train/ Subway		Waiting to board		Walking		Car		Bus		Bicycle		*Shinkansen*		Taxi		Other	
	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Yes	7.91	8.06	6.22	5.73	4.16	4.90	4.53	3.88	0.59	0.62	0.37	0.56	0.32	0.18	*0.09*	*0.10*	2.01	2.17
No	22.18	21.74	15.41	15.44	13.60	13.21	10.06	10.47	1.74	1.68	1.51	1.52	0.32	0.48	0.27	0.26	5.53	5.85
Don't know	0.69	0.97	0.23	0.69	0.91	0.59	0.23	0.47	0.05	0.08	0.27	0.07	*0.05*	*0.02*	*0.00*	*0.01*	0.73	0.26

[1]Significant at $p < .0001$. Not significant at $p = .05$ when "Don't know" responses are treated as missing. Do not use MobileNet during commute = 999; Missing = 358.

TABLE A33
Interaction[1] of 'Availability of Other Internet Access' and 'Leisure Micro-Location'

Column Percentages

Other Internet access available	Sitting outdoors	Restaurant	Park	Bookstore	Bar/Club	Library	Other	Overall
Yes	**25.98**	**24.78**	27.27	**35.42**	37.04	*29.41*	**32.06**	27.68
No	**71.73**	72.54	65.45	**50.00**	55.56	64.71	**62.91**	68.79
Don't know	**2.29**	2.68	*7.27*	**14.58**	7.41	5.88	**5.03**	3.53
N	1093	448	55	48	27	17	577	2265

Row Percentages

Other Internet access available	Sitting outdoors	Restaurant	Park	Bookstore	Bar/Club	Library	Other	N
Yes	**45.30**	**17.70**	2.39	**2.71**	1.59	*0.80*	**29.51**	627
No	**50.32**	20.86	2.31	**1.54**	0.96	0.71	**23.30**	1558
Don't know	**31.25**	15.00	*5.00*	**8.75**	*2.50*	*1.25*	**36.25**	80
Overall	48.26	19.78	2.43	2.12	1.19	0.75	25.47	2265

Actual and Expected Cell Percentages

Other Internet access available	Sitting outdoors		Restaurant		Park		Bookstore		Bar/Club		Library		Other	
	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Yes	**12.54**	**13.36**	**4.90**	**5.48**	0.66	0.67	**0.75**	**0.59**	0.44	0.33	*0.22*	*0.21*	**8.17**	**7.05**
No	**34.61**	**33.19**	14.35	13.61	1.59	1.67	**1.06**	**1.46**	0.66	0.82	0.49	0.52	**16.03**	**17.52**
Don't know	**1.10**	**1.70**	0.53	0.70	*0.18*	*0.09*	**0.31**	**0.07**	0.09	0.04	0.04	0.03	**1.28**	**0.90**

[1]Significant at $p < .0001$. Significant at $p = .0122$ when "Don't know" responses are treated as missing. Do not use MobileNet in leisure locations = 897; Missing = 357.

TABLE A34
Interaction[1] of 'Content' and 'Daily Usage (Minutes)'

Column Percentages

Content	< 5	5-10	10-20	20-30	30-60	60-90	> 90	Overall
Email/Chat	**73.44**	**81.00**	**79.87**	78.20	**80.47**	**67.06**	76.01	76.32
Ringtone/Picture	**5.78**	**4.75**	5.21	4.51	**2.92**	**7.06**	**3.32**	5.26
News/Information	**3.53**	**3.59**	**5.21**	**5.51**	4.56	**9.41**	**5.90**	4.04
Traffic/Transportation	**3.67**	**2.51**	**2.24**	**1.88**	**1.09**	1.76	2.21	2.98
Entertainment	**1.58**	**2.59**	**2.75**	**3.26**	**4.20**	**6.47**	2.21	2.23
Weather	**2.08**	1.39	**1.01**	**0.50**	**0.73**	*1.76*	*0.37*	1.61
Banking/Trading	1.39	1.54	1.30	1.38	1.28	*0.00*	*1.48*	1.39
Townpages/Local info	0.57	**0.35**	**0.14**	*0.63*	*0.55*	*1.76*	*1.11*	0.51
Shopping	0.26	0.27	*0.14*	*0.25*	*0.36*	*0.59*	*1.11*	0.27
Other	**7.71**	**2.01**	**2.10**	**3.88**	**3.83**	4.12	6.27	5.39
N	6630	2589	1381	798	548	170	271	12387

Row Percentages

	< 5	5-10	10-20	20-30	30-60	60-90	> 90	N
Email/Chat	**51.50**	**22.18**	**11.67**	6.60	**4.66**	**1.21**	2.18	9454
Ringtone/Picture	**58.83**	**18.89**	11.06	5.53	**2.46**	**1.84**	**1.38**	651
News/Information	**46.80**	**18.60**	**14.40**	**8.80**	5.00	**3.20**	**3.20**	500
Traffic/Transportation	**65.85**	**17.62**	**8.40**	**4.07**	**1.63**	0.81	1.63	369
Entertainment	**38.04**	**24.28**	**13.77**	**9.42**	**8.33**	**3.99**	2.17	276
Weather	**69.00**	18.00	**7.00**	**2.00**	**2.00**	*1.50*	*0.50*	200
Banking/Trading	53.49	23.26	10.47	6.40	4.07	*0.00*	*2.33*	172
Townpages/Local info	60.32	**14.29**	**3.17**	*7.94*	*4.76*	*4.76*	*4.76*	63
Shopping	50.00	20.59	*5.88*	*5.88*	*5.88*	*2.94*	*8.82*	34
Other	**76.50**	**7.78**	**4.34**	**4.64**	**3.14**	1.05	2.54	668
Overall	53.52	20.90	11.15	6.44	4.42	1.37	2.19	12387

Actual and Expected Cell Percentages

	< 5		5-10		10-20		20-30		30-60		60-90		> 90	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	**39.31**	**40.85**	**16.93**	**15.95**	**8.90**	**8.51**	5.04	4.92	**3.56**	**3.38**	**0.92**	**1.05**	1.66	1.67
Ringtone/ Picture	**3.09**	**2.81**	**0.99**	**1.10**	0.58	0.59	0.29	0.34	**0.13**	**0.23**	**0.10**	**0.07**	**0.07**	**0.11**
News/ Information	**1.89**	**2.16**	**0.75**	**0.84**	**0.58**	**0.45**	**0.36**	**0.26**	0.20	0.18	**0.13**	**0.06**	**0.13**	**0.09**
Traffic/ Transportation	**1.96**	**1.59**	**0.52**	**0.62**	**0.25**	**0.33**	**0.12**	**0.19**	**0.05**	**0.13**	0.02	0.04	0.05	0.07
Entertainment	**0.85**	**1.19**	**0.54**	**0.47**	**0.31**	**0.25**	**0.21**	**0.14**	**0.19**	**0.10**	**0.09**	**0.03**	0.05	0.05
Weather	**1.11**	**0.86**	0.29	0.34	**0.11**	**0.18**	**0.03**	**0.10**	**0.03**	**0.07**	*0.02*	*0.02*	*0.01*	*0.04*
Banking/ Trading	0.74	0.74	0.32	0.29	0.15	0.15	0.09	0.09	0.06	0.06	*0.00*	*0.02*	*0.03*	*0.03*
Townpages/ Local info	0.31	0.27	**0.07**	**0.11**	**0.02**	**0.06**	*0.04*	*0.03*	*0.02*	*0.02*	*0.02*	*0.01*	*0.02*	*0.01*
Shopping	0.14	0.15	0.06	0.06	*0.02*	*0.03*	*0.02*	*0.02*	*0.02*	*0.01*	*0.01*	*0.00*	*0.02*	*0.01*
Other	**4.13**	**2.89**	**0.42**	**1.13**	**0.23**	**0.60**	**0.25**	**0.35**	**0.17**	**0.24**	0.06	0.07	0.14	0.12

[1]Significant at $p < .0001$.

TABLE A35
Interaction[1] of 'Pay Extra for Content' and Daily Usage (Minutes)'

Column Percentages

Pay for content	< 5	5-10	10-20	20-30	30-60	60-90	> 90	Total
Yes	**17.60**	**30.99**	**36.09**	**42.57**	**48.90**	**47.90**	**53.73**	26.63
No	**69.18**	**56.34**	**50.04**	**47.10**	**40.29**	**37.72**	**36.94**	60.55
Don't know	13.22	12.67	**13.87**	**10.33**	**10.81**	14.37	**9.33**	12.82
N	6625	2572	1377	794	546	167	268	12349

Row Percentages

Pay for content	< 5	5-10	10-20	20-30	30-60	60-90	> 90	N
Yes	**35.45**	**24.23**	**15.11**	**10.28**	**8.12**	**2.43**	**4.38**	3289
No	**61.29**	**19.38**	**9.21**	**5.00**	**2.94**	**0.84**	**1.32**	7477
Don't know	55.34	20.59	**12.07**	**5.18**	**3.73**	1.52	**1.58**	1583
Overall	53.65	20.83	11.15	6.43	4.42	1.35	2.17	12349

Actual and Expected Cell Percentages

Pay for content	< 5		5-10		10-20		20-30		30-60		60-90		> 90	
	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Yes	**9.44**	**14.29**	**6.45**	**5.55**	**4.02**	**2.97**	**2.74**	**1.71**	**2.16**	**1.18**	**0.65**	**0.36**	**1.17**	**0.58**
No	**37.11**	**32.48**	**11.73**	**12.61**	**5.58**	**6.75**	**3.03**	**3.89**	**1.78**	**2.68**	**0.51**	**0.82**	**0.80**	**1.31**
Don't know	7.09	6.88	2.64	2.67	**1.55**	**1.43**	**0.66**	**0.82**	**0.48**	**0.57**	0.19	0.17	**0.20**	**0.28**

[1]Significant at $p < .0001$.

TABLE A36
Interaction[1] of 'Daily Usage' and 'Monthly Spending for Content'

Column Percentages

Minutes/day	< ¥250	¥250-500	¥501-1000	> ¥1000	Overall
Less than 5	**51.16**	**39.98**	**29.86**	**20.12**	36.92
5-10	22.91	**28.41**	25.36	**18.53**	24.05
10-20	**12.16**	**12.82**	**19.06**	**17.06**	14.62
20-30	**6.03**	10.33	**13.85**	**11.66**	9.97
30-60	**4.22**	**4.90**	7.19	**16.69**	7.82
60-90	1.91	**1.25**	**3.06**	**4.05**	2.38
Over 90	**1.61**	**2.32**	**1.62**	**11.90**	4.24
N	995	1123	556	815	3489

Row Percentages

Minutes/day	< ¥250	¥250-500	¥501-1000	> ¥1000	N
Less than 5	**39.52**	**34.86**	**12.89**	**12.73**	1288
5-10	27.18	**38.02**	16.81	**18.00**	839
10-20	**23.73**	**28.24**	**20.78**	**27.25**	510
20-30	**17.24**	33.33	**22.13**	**27.30**	348
30-60	**15.38**	**20.15**	14.65	**49.82**	273
60-90	22.89	**16.87**	**20.48**	**39.76**	83
Over 90	**10.81**	**17.57**	**6.08**	**65.54**	148
Overall	28.52	32.19	15.94	23.36	3489

Actual and Expected Cell Percentages

	< ¥250		¥250-500		¥501-1000		> ¥1000	
Minutes/day	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Less than 5	**14.59**	**10.53**	**12.87**	**11.88**	**4.76**	**5.88**	**4.70**	**8.62**
5-10	6.53	6.86	**9.14**	**7.74**	4.04	3.83	**4.33**	**5.62**
10-20	**3.47**	**4.17**	**4.13**	**4.70**	**3.04**	**2.33**	3.98	3.41
20-30	**1.72**	**2.84**	3.32	3.21	**2.21**	**1.59**	2.72	2.33
30-60	**1.20**	**2.23**	**1.58**	**2.52**	1.15	1.25	3.90	1.83
60-90	0.54	0.68	**0.40**	**0.77**	**0.49**	**0.38**	0.95	0.56
Over 90	**0.46**	**1.21**	**0.75**	**1.37**	**0.26**	**0.68**	2.78	0.99

[1]Significant at p < .0001. Do not spend extra for content = 7477; Missing = 2926.

TABLE A37
Interaction[1] of 'Content' and 'Monthly Spending for Content'

Column Percentages

Content	< ¥250	¥250-500	¥501-1000	> ¥1000	Overall
Email/Chat	75.77	73.93	71.15	72.88	73.77
Ringtone/Picture	**5.46**	**7.86**	**7.89**	**5.40**	6.60
News/Information	4.87	4.82	**6.45**	6.01	5.37
Traffic/Transportation	3.08	**3.39**	**1.61**	**1.96**	2.69
Entertainment	**2.09**	4.46	**6.45**	**5.15**	4.25
Weather	**2.09**	1.34	1.61	**0.74**	1.46
Banking/Trading	1.69	**0.80**	1.08	**2.21**	1.43
Townpages/Local info	0.60	**0.89**	*0.54*	0.37	0.63
Shopping	*0.30*	*0.09*	*0.18*	*0.49*	0.25
Other	4.07	**2.41**	3.05	**4.79**	3.54
N	1007	1120	558	815	3500

Row Percentages

Content	< ¥250	¥250-500	¥501-1000	> ¥1000	N
Email/Chat	29.55	32.07	15.38	23.01	2582
Ringtone/Picture	**23.81**	**38.10**	**19.05**	**19.05**	231
News/Information	26.06	28.72	**19.15**	26.06	188
Traffic/Transportation	32.98	**40.43**	**9.57**	**17.02**	94
Entertainment	**14.09**	33.56	**24.16**	**28.19**	149
Weather	**41.18**	29.41	17.65	**11.76**	51
Banking/Trading	34.00	**18.00**	12.00	**36.00**	50
Townpages/Local info	27.27	**45.45**	*13.64*	13.64	22
Shopping	*33.33*	*11.11*	*11.11*	*44.44*	9
Other	33.06	**21.77**	13.71	**31.45**	124
Overall	28.77	32.00	15.4	23.29	3500

Actual and Expected Cell Percentages

	< ¥250		¥250-500		¥501-1000		> ¥1000	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	21.80	21.23	23.66	23.61	11.34	11.76	16.97	17.18
Ringtone/Picture	**1.57**	**1.90**	**2.51**	**2.11**	**1.26**	**1.05**	**1.26**	**1.54**
News/Information	1.40	1.55	1.54	1.72	**1.03**	**0.86**	1.40	1.25
Traffic/Transportation	0.89	0.77	**1.09**	**0.86**	**0.26**	**0.43**	**0.46**	**0.63**
Entertainment	**0.60**	**1.22**	1.43	1.36	**1.03**	**0.68**	**1.20**	**0.99**
Weather	**0.60**	**0.42**	0.43	0.47	0.26	0.23	**0.17**	**0.34**
Banking/Trading	0.49	0.41	**0.26**	**0.46**	0.17	0.23	**0.51**	**0.33**
Townpages/Local info	0.17	0.18	**0.29**	**0.20**	*0.09*	*0.10*	0.09	0.15
Shopping	*0.09*	*0.07*	*0.03*	*0.08*	*0.03*	*0.04*	*0.11*	*0.06*
Other	1.17	1.02	**0.77**	**1.13**	0.49	0.56	**1.11**	**0.82**

[1]Significant at p < .0001. Do not spend extra for content = 7619; Missing = 2773.

TABLE A38
Interaction[1] of 'Home Micro-Location' and 'Daily Usage (Minutes)'

Column Percentages

Location	< 5	5-10	10-20	20-30	30-60	60-90	> 90	Overall
Living/dining room	**53.63**	48.84	47.97	**40.97**	43.80	**33.33**	49.18	49.84
Bedroom	**31.86**	37.02	38.18	38.19	**45.99**	**46.15**	32.79	35.47
Bathroom	2.25	2.13	**1.01**	**5.56**	*3.65*	*5.13*	*1.64*	2.39
Kitchen	1.76	1.16	*1.35*	*0.69*	*1.46*	*2.56*	*3.28*	1.54
Other	10.49	10.85	11.49	**14.58**	**5.11**	*12.82*	13.11	10.75
N	1020	516	296	144	137	39	61	2213

Row Percentages

Location	< 5	5-10	10-20	20-30	30-60	60-90	> 90	N
Living/dining room	**49.59**	22.85	12.87	**5.35**	5.44	**1.18**	2.72	1103
Bedroom	**41.40**	24.33	14.39	7.01	**8.03**	**2.29**	2.55	785
Bathroom	43.40	20.75	**5.66**	**15.09**	*9.43*	*3.77*	*1.89*	53
Kitchen	52.94	17.65	*11.76*	*2.94*	*5.88*	*2.94*	*5.88*	34
Other	44.96	23.53	14.29	**8.82**	**2.94**	*2.10*	3.36	238
Overall	46.09	22.32	13.38	6.51	6.19	1.76	2.76	2213

Actual and Expected Cell Percentages

	Less than 5		5-10		10-20		20-30		30-60		60-90		Over 90	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Living/dining room	**24.72**	**22.97**	11.39	11.62	6.42	6.67	**2.67**	**3.24**	2.71	3.09	**0.59**	**0.88**	1.36	1.37
Bedroom	**14.69**	**16.35**	8.63	8.27	5.11	4.74	2.49	2.31	**2.85**	**2.20**	**0.81**	**0.63**	0.90	0.98
Bathroom	1.04	1.10	0.50	0.56	**0.14**	**0.32**	**0.36**	**0.16**	*0.23*	*0.15*	*0.09*	*0.04*	*0.05*	*0.07*
Kitchen	0.81	0.71	0.27	0.36	*0.18*	*0.21*	*0.05*	*0.10*	*0.09*	*0.10*	*0.05*	*0.03*	*0.09*	*0.04*
Other	4.84	4.96	2.53	2.51	1.54	1.44	**0.95**	**0.70**	**0.32**	**0.67**	*0.23*	*0.19*	0.36	0.30

[1]Significant at p < .0219. Do not use MobileNet at home = 825; Missing = 263.

TABLE A39
Interaction[1] of 'Work/School Micro-Location' and 'Daily Usage (Minutes)'

Column Percentages

Location	< 5	5-10	10-20	20-30	30-60	60-90	> 90	Overall
Desk/Workspace	44.73	**48.42**	**40.74**	41.49	51.69	41.94	55.10	45.38
Break room	**20.47**	25.05	**29.26**	**29.26**	24.58	29.03	20.41	23.51
Outside	**13.90**	**10.76**	**9.63**	12.77	10.17	*16.13*	10.20	12.38
Hall	**6.23**	4.64	5.93	4.26	3.39	*6.45*	*2.04*	5.46
Restroom	3.62	3.90	4.81	4.26	*4.24*	*0.00*	*2.04*	3.82
Cafeteria	**1.43**	2.04	**4.44**	*2.66*	*1.69*	*6.45*	*4.08*	2.14
Other	**9.60**	**5.19**	**5.19**	5.32	**4.24**	*0.00*	*6.12*	7.30
N	1187	539	270	188	118	31	49	2382

Row Percentages

Location	< 5	5-10	1020	20-30	30-60	60-90	> 90	N
Desk/Workspace	49.12	**24.14**	**10.18**	7.22	5.64	1.20	2.50	1081
Break room	**43.39**	24.11	**14.11**	**9.82**	5.18	1.61	1.79	560
Outside	**55.93**	**19.66**	**8.81**	8.14	4.07	*1.69*	1.69	295
Hall	**56.92**	19.23	12.31	6.15	3.08	*1.54*	*0.77*	130
Restroom	47.25	23.08	14.29	8.79	*5.49*	*0.00*	*1.10*	91
Cafeteria	**33.33**	21.57	**23.53**	*9.80*	*3.92*	*3.92*	*3.92*	51
Other	**65.52**	**16.09**	**8.05**	5.75	**2.87**	*0.00*	*1.72*	174
Overall	49.83	22.63	11.34	7.89	4.95	1.30	2.06	2382

Actual and Expected Cell Percentages

	Less than 5		5-10		10-20		20-30		30-60		60-90		Over 90	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Desk/Workspace	22.29	22.61	**10.96**	**10.27**	**4.62**	**5.14**	3.27	3.58	2.56	2.25	0.55	0.59	1.13	0.93
Break room	**10.20**	**11.72**	5.67	5.32	**3.32**	**2.66**	**2.31**	**1.86**	1.22	1.16	0.38	0.31	0.42	0.48
Outside	**6.93**	**6.17**	**2.43**	**2.80**	**1.09**	**1.40**	1.01	0.98	0.50	0.61	*0.21*	*0.16*	0.21	0.25
Hall	**3.11**	**2.72**	1.05	1.23	0.67	0.62	0.34	0.43	0.17	0.27	*0.08*	*0.07*	*0.04*	*0.11*
Restroom	1.81	1.90	0.88	0.86	0.55	0.43	0.34	0.30	*0.21*	*0.19*	*0.00*	*0.05*	*0.04*	*0.08*
Cafeteria	**0.71**	**1.07**	0.46	0.48	**0.50**	**0.24**	*0.21*	*0.17*	*0.08*	*0.11*	*0.08*	*0.03*	*0.08*	*0.04*
Other	**4.79**	**3.64**	**1.18**	**1.65**	**0.59**	**0.83**	0.42	0.58	**0.21**	**0.36**	*0.00*	*0.10*	*0.13*	*0.15*

[1]Significant at p = .0039. Do not use MobileNet at work/school = 781; Missing = 365.

TABLE A40
Interaction[1] of 'Commute Micro-Location' and 'Daily Usage (Minutes)'

Column Percentages

Location	< 5	5-10	10-20	20-30	30-60	60-90	> 90	Overall
Train/Subway	**26.30**	**35.43**	**35.32**	**37.76**	27.03	**43.59**	28.85	30.73
Waiting to board	22.71	22.61	24.60	20.92	**17.12**	**7.69**	**13.46**	21.97
Walking	19.87	**16.30**	17.86	16.84	**24.32**	**10.26**	21.15	18.69
Car	14.66	15.87	**11.90**	15.31	15.32	15.38	19.23	14.81
Bus	**1.80**	2.39	1.59	**4.08**	**5.41**	*7.69*	*1.92*	2.40
Bicycle	1.80	**1.30**	2.78	*2.04*	*2.70*	*7.69*	*7.69*	2.12
Shinkansen	0.57	**1.30**	*0.40*	*0.00*	*2.70*	*0.00*	*0.00*	0.74
Taxi	*0.28*	*0.00*	*0.79*	*0.00*	*1.80*	*0.00*	*1.92*	0.37
Other	**12.02**	**4.78**	**4.76**	**3.06**	*3.60*	*7.69*	*5.77*	8.17
N	1057	460	252	196	111	39	52	2167

Row Percentages

Location	< 5	5-10	10-20	20-30	30-60	60-90	> 90	N
Train/Subway	**41.74**	**24.47**	**13.36**	**11.11**	4.50	**2.55**	2.25	666
Waiting to board	50.42	21.85	13.03	8.61	**3.99**	**0.63**	**1.47**	476
Walking	51.85	**18.52**	11.11	8.15	**6.67**	**0.99**	2.72	405
Car	48.29	22.74	**9.35**	9.35	5.30	1.87	3.12	321
Bus	**36.54**	21.15	7.69	**15.38**	**11.54**	*5.77*	*1.92*	52
Bicycle	41.30	**13.04**	15.22	*8.70*	*6.52*	*6.52*	*8.70*	46
Shinkansen	37.50	**37.50**	*6.25*	*0.00*	*18.75*	*0.00*	*0.00*	16
Taxi	*37.50*	*0.00*	*25.00*	*0.00*	*25.00*	*0.00*	*12.50*	8
Other	**71.75**	**12.43**	**6.78**	**3.39**	*2.26*	*1.69*	*1.69*	177
Overall	48.78	21.23	11.63	9.04	5.12	1.80	2.40	2167

Actual and Expected Cell Percentages

	Less than 5		5-10		10-20		20-30		30-60		60-90		Over 90	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Train/ Subway	**12.83**	**14.99**	**7.52**	**6.52**	**4.11**	**3.57**	**3.41**	**2.78**	1.38	1.57	**0.78**	**0.55**	0.69	0.74
Waiting	11.08	10.71	4.80	4.66	2.86	2.55	1.89	1.99	**0.88**	**1.13**	**0.14**	**0.40**	**0.32**	**0.53**
Walking	9.69	9.12	**3.46**	**3.97**	2.08	2.17	1.52	1.69	**1.25**	**0.96**	**0.18**	**0.34**	0.51	0.45
Car	7.15	7.23	3.37	3.14	**1.38**	**1.72**	1.38	1.34	0.78	0.76	0.28	0.27	0.46	0.36
Bus	**0.88**	**1.17**	0.51	0.51	0.18	0.28	**0.37**	**0.22**	**0.28**	**0.12**	*0.14*	*0.04*	*0.05*	*0.06*
Bicycle	0.88	1.04	**0.28**	**0.45**	0.32	0.25	*0.18*	*0.19*	*0.14*	*0.11*	*0.14*	*0.04*	*0.18*	*0.05*
Shinkansen	0.28	0.36	**0.28**	**0.16**	*0.05*	*0.09*	*0.00*	*0.07*	*0.14*	*0.04*	*0.00*	*0.01*	*0.00*	*0.02*
Taxi	*0.14*	*0.18*	*0.00*	*0.08*	*0.09*	*0.04*	*0.00*	*0.03*	*0.09*	*0.02*	*0.00*	*0.01*	*0.05*	*0.01*
Other	**5.86**	**3.98**	**1.02**	**1.73**	**0.55**	**0.95**	**0.28**	**0.74**	*0.18*	*0.42*	*0.14*	*0.15*	*0.14*	*0.20*

[1]Significant at $p < .0001$. Do not use MobileNet during commute = 999; Missing = 378.

TABLE A41
Interaction[1] of 'Leisure Micro-Location' and 'Daily Usage (Minutes)'

Column Percentages

Location	< 5	5-10	10-20	20-30	30-60	60-90	> 90	Overall
Sitting outdoors	48.85	47.75	49.63	48.37	**41.13**	53.85	48.15	48.29
Restaurant	**16.44**	19.85	25.19	21.57	**38.71**	17.95	16.67	19.89
Park	**1.85**	2.62	2.22	**3.92**	*3.23*	*7.69*	*3.70*	2.44
Bookstore	**2.77**	1.69	1.48	*0.00*	*2.42*	*5.13*	*0.00*	2.13
Bar/Club	0.92	1.12	*1.85*	*1.31*	*0.81*	*2.56*	*3.70*	1.20
Library	**0.46**	*0.75*	*0.74*	*0.65*	*2.42*	*0.00*	*3.70*	0.75
Other	**28.72**	26.22	**18.89**	24.18	**11.29**	**12.82**	24.07	25.30
N	1083	534	270	153	124	39	54	2257

Row Percentages

Location	< 5	5-10	10-20	20-30	30-60	60-90	> 90	N
Sitting outdoors	48.53	23.39	12.29	6.79	**4.68**	1.93	2.39	1090
Restaurant	**39.64**	23.61	15.14	7.35	**10.69**	1.56	2.00	449
Park	**36.36**	25.45	10.91	**10.91**	*7.27*	*5.45*	*3.64*	55
Bookstore	**62.50**	18.75	8.33	*0.00*	*6.25*	*4.17*	*0.00*	48
Bar/Club	37.04	22.22	*18.52*	*7.41*	*3.70*	*3.70*	*7.41*	27
Library	**29.41**	*23.53*	*11.76*	*5.88*	*17.65*	*0.00*	*11.76*	17
Other	**54.47**	24.52	**8.93**	6.48	**2.45**	**0.88**	2.28	571
Overall	47.98	23.66	1.96	6.78	5.49	1.73	2.39	2257

Actual and Expected Cell Percentages

	Less than 5		5-10		10-20		20-30		30-60		60-90		Over 90	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Sitting outdoors	23.44	23.17	11.30	11.43	5.94	5.78	3.28	3.27	**2.26**	**2.65**	0.93	0.83	1.15	1.16
Restaurant	**7.89**	**9.55**	4.70	4.71	3.01	2.38	1.46	1.35	**2.13**	**1.09**	0.31	0.34	0.40	0.48
Park	**0.89**	**1.17**	0.62	0.58	0.27	0.29	**0.27**	**0.17**	*0.18*	*0.13*	*0.13*	*0.04*	*0.09*	*0.06*
Bookstore	**1.33**	**1.02**	0.40	0.50	0.18	0.25	*0.00*	*0.14*	*0.13*	*0.12*	*0.09*	*0.04*	*0.00*	*0.05*
Bar/Club	0.44	0.57	0.27	0.28	*0.22*	*0.14*	*0.09*	*0.08*	*0.04*	*0.07*	*0.04*	*0.02*	*0.09*	*0.03*
Library	**0.22**	**0.36**	*0.18*	*0.18*	*0.09*	*0.09*	*0.04*	*0.05*	*0.13*	*0.04*	*0.00*	*0.01*	*0.09*	*0.02*
Other	**13.78**	**12.14**	6.20	5.99	**2.26**	**3.03**	1.64	1.72	**0.62**	**1.39**	**0.22**	**0.44**	0.58	0.61

[1]Significant at $p < .0001$. Do not use MobileNet in leisure locations = 859; Missing = 365.

TABLE A42
Interaction[1] of 'Home Micro-Location' and 'Monthly Spending for Content'

Column Percentages

Location	< ¥250	¥250-500	¥501-1000	> ¥1000	Overall
Living/dining room	51.28	48.82	41.46	40.96	46.33
Bedroom	34.87	38.39	39.84	46.99	39.71
Bathroom	1.54	1.90	*4.07*	3.61	2.59
Kitchen	*2.56*	*1.42*	*1.63*	*1.20*	1.73
Other	9.74	9.48	13.01	7.23	9.64
N	195	211	123	166	695

Row Percentages

Location	< ¥250	¥250-500	¥501-1000	> ¥1000	N
Living/dining room	31.06	31.99	15.84	21.12	322
Bedroom	24.64	29.35	17.75	28.26	276
Bathroom	16.67	22.22	*27.78*	33.33	18
Kitchen	*41.67*	*25.00*	*16.67*	*16.67*	12
Other	28.36	29.85	23.88	17.91	67
Overall	28.06	30.36	17.70	23.88	695

Actual and Expected Cell Percentages

	< ¥250		¥250-500		¥501-1000		> ¥1000	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Living/dining room	14.39	13.00	14.82	14.07	7.34	8.20	9.78	11.07
Bedroom	9.78	11.14	11.65	12.06	7.05	7.03	11.22	9.49
Bathroom	0.43	0.73	0.58	0.79	*0.72*	*0.46*	0.86	0.62
Kitchen	*0.72*	*0.48*	*0.43*	*0.52*	*0.29*	*0.31*	*0.29*	*0.41*
Other	2.73	2.70	2.88	2.93	2.30	1.71	1.73	2.30

[1]Not significant at p = .05. Do not spend extra for content or do not use MobileNet at home = 2000; Missing = 606.

TABLE A43
Interaction[1] of 'Work/School Micro-Location' and 'Monthly Spending for Content'

Column Percentages

Location	< ¥250	¥250-500	¥501-1000	> ¥1000	Overall
Desk/Workspace	44.33	42.92	38.02	54.71	45.24
Break room	23.71	29.58	33.06	20.00	26.34
Outside	13.92	8.33	9.09	8.82	10.07
Hall	4.64	4.17	4.96	2.94	4.14
Restroom	3.61	5.42	4.13	5.88	4.83
Cafeteria	*1.03*	2.50	4.96	*1.76*	2.34
Other	8.76	7.08	5.79	5.88	7.03
N	194	240	121	170	725

Row Percentages

Location	< ¥250	¥250-500	¥501-1000	> ¥1000	N
Desk/Workspace	26.22	31.40	14.02	28.35	328
Break room	24.08	37.17	20.94	17.80	191
Outside	36.99	27.40	15.07	20.55	73
Hall	30.00	33.33	20.00	16.67	30
Restroom	20.00	37.14	14.29	28.57	35
Cafeteria	*11.76*	35.29	35.29	*17.65*	17
Other	33.33	33.33	13.73	19.61	51
Overall	26.76	33.10	16.69	23.45	725

Actual and Expected Cell Percentages

	< ¥250		¥250-500		¥501-1000		> ¥1000	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Desk/Workspace	11.86	12.11	14.21	14.98	6.34	7.55	12.83	10.61
Break room	6.34	7.05	9.79	8.72	5.52	4.40	4.69	6.18
Outside	3.72	2.69	2.76	3.33	1.52	1.68	2.07	2.36
Hall	1.24	1.11	1.38	1.37	0.83	0.69	0.69	0.97
Restroom	0.97	1.29	1.79	1.60	0.69	0.81	1.38	1.13
Cafeteria	*0.28*	*0.63*	0.83	0.78	0.83	0.39	*0.41*	*0.55*
Other	2.34	1.88	2.34	2.33	0.97	1.17	1.38	1.65

[1]Not significant at p = .05. Do not spend extra for content or do not use MobileNet at work/school = 2142; Missing = 661.

TABLE A44
Interaction[1] of Commute Micro-Location'' and' Monthly Spending for Content'

Column Percentages

Location	< ¥250	¥250-500	¥501-1000	> ¥1000	Overall
Train/Subway	32.81	37.80	30.39	29.82	33.23
Waiting to board	25.52	24.40	23.53	16.96	22.70
Walking	17.19	13.88	22.55	21.05	17.95
Car	13.54	13.88	15.69	20.47	15.73
Bus	*2.08*	2.87	*0.98*	3.51	2.52
Bicycle	*1.04*	*1.44*	*0.98*	4.09	1.93
Shinkansen	*1.04*	*0.48*	*0.00*	*0.58*	0.59
Taxi	*0.00*	*0.96*	*0.00*	*0.00*	0.30
Other	6.77	4.31	5.88	3.51	5.04
N	192	209	102	171	674

Row Percentages

Location	< ¥250	¥250-500	¥501-1000	> ¥1000	N
Train/Subway	28.13	35.27	13.84	22.77	224
Waiting to board	32.03	33.33	15.69	18.95	153
Walking	27.27	23.97	19.01	29.75	121
Car	24.53	27.36	15.09	33.02	106
Bus	*23.53*	35.29	*5.88*	35.29	17
Bicycle	*15.38*	*23.08*	*7.69*	53.85	13
Shinkansen	*50.00*	*25.00*	*0.00*	*25.00*	4
Taxi	*0.00*	*100.00*	*0.00*	*0.00*	2
Other	38.24	26.47	17.65	17.65	34
Overall	28.49	31.01	15.13	25.37	674

Actual and Expected Cell Percentages

	< ¥250		¥250-500		¥501-1000		> ¥1000	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Train/Subway	9.35	9.47	11.72	10.31	4.60	5.03	7.57	8.43
Waiting	7.27	6.47	7.57	7.04	3.56	3.44	4.30	5.76
Walking	4.90	5.11	4.30	5.57	3.41	2.72	5.34	4.55
Car	3.86	4.48	4.30	4.88	2.37	2.38	5.19	3.99
Bus	*0.59*	*0.72*	0.89	0.78	*0.15*	*0.38*	0.89	0.64
Bicycle	*0.30*	*0.55*	*0.45*	*0.60*	*0.15*	*0.29*	1.04	0.49
Shinkansen	*0.30*	*0.17*	*0.15*	*0.18*	*0.00*	*0.09*	*0.15*	*0.15*
Taxi	*0.00*	*0.08*	*0.30*	*0.09*	*0.00*	*0.04*	*0.00*	*0.08*
Other	1.93	1.44	1.34	1.56	0.89	0.76	0.89	1.28

[1]Not significant at p = .05. Do not spend extra for content or do not use MobileNet during commute = 2132; Missing = 738.

TABLE A45
Interaction[1] of 'Leisure Micro-Location' and 'Monthly Spending for Content'

Column Percentages

Location	< ¥250	¥250-500	¥501-1000	> ¥1000	Overall
Sitting outdoors	48.65	48.90	42.37	42.94	46.32
Restaurant	17.84	30.84	22.88	31.29	26.12
Park	*2.16*	2.20	*3.39*	*2.45*	2.45
Bookstore	*2.16*	2.64	*1.69*	*1.84*	2.16
Bar/Club	*1.62*	*0.44*	*0.85*	*0.61*	0.87
Library	*0.00*	*0.44*	*0.85*	*1.23*	0.58
Other	27.57	14.54	27.97	19.63	21.50
N	185	227	118	163	693

Row Percentages

Location	< ¥250	¥250- ¥500	¥501-¥1000	> ¥1000	N
Sitting outdoors	28.04	34.58	15.58	21.81	321
Restaurant	18.23	38.67	14.92	28.18	181
Park	*23.53*	29.41	*23.53*	*23.53*	17
Bookstore	*26.67*	40.00	*13.33*	*20.00*	15
Bar/Club	*50.00*	*16.67*	*16.67*	*16.67*	6
Library	*0.00*	*25.00*	*25.00*	*50.00*	4
Other	34.23	22.15	22.15	21.48	149
Overall	26.70	32.76	17.03	23.52	693

Actual and Expected Cell Percentages

	< ¥250		¥250-500		¥501-1000		> ¥1000	
Location	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Sitting outdoors	12.99	12.37	16.02	15.17	7.22	7.89	10.10	10.89
Restaurant	4.76	6.97	10.10	8.56	3.90	4.45	7.36	6.14
Park	*0.58*	*0.65*	0.72	0.80	*0.58*	*0.42*	*0.58*	*0.58*
Bookstore	*0.58*	*0.58*	0.87	0.71	*0.29*	*0.37*	*0.43*	*0.51*
Bar/Club	*0.43*	*0.23*	*0.14*	*0.28*	*0.14*	*0.15*	*0.14*	*0.20*
Library	*0.00*	*0.15*	*0.14*	*0.19*	*0.14*	*0.10*	*0.29*	*0.14*
Other	7.36	5.74	4.76	7.04	4.76	3.66	4.62	5.06

[1]Not significant at p = .05. Do not spend extra for content or do not use MobileNet from leisure locations = 2092; Missing = 734.

TABLE A46
Interaction[1] of 'Content' and 'Like Best'

Column Percentages

Content	Convenient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives Independence	Other	Overall
Email/Chat	**80.63**	**81.93**	**65.44**	**50.73**	69.83	**65.24**	73.40	**33.33**	**40.10**	75.83
Ringtone/Picture	**4.43**	**4.26**	**11.32**	5.43	4.47	**9.15**	*5.32*	*13.33*	**3.66**	5.21
News/Information	**2.94**	**2.77**	**7.35**	**19.62**	5.03	4.27	*4.26*	*13.33*	**1.00**	3.98
Traffic/Transportation	**3.23**	**2.35**	2.72	**4.80**	**5.59**	**5.49**	*3.19*	*6.67*	**1.16**	2.94
Entertainment	**1.44**	**1.17**	**6.40**	**8.14**	2.23	**3.66**	*4.26*	*0.00*	**1.00**	2.19
Weather	1.61	1.49	1.54	1.67	**2.79**	**3.66**	*2.13*	*6.67*	**0.83**	1.58
Banking/Trading	1.54	**1.07**	**0.51**	**3.76**	2.23	**3.66**	*2.13*	*6.67*	1.16	1.40
Townpages/Local info	0.51	0.43	**0.29**	*1.04*	*2.23*	*1.22*	*1.06*	*0.00*	*0.17*	0.50
Shopping	0.22	0.27	**0.66**	*0.21*	*0.00*	*0.00*	*1.06*	*6.67*	*0.17*	0.29
Other	**3.47**	**4.26**	**3.75**	**4.59**	5.59	**3.66**	**3.19**	*13.33*	**50.75**	6.08
N	5916	3752	1360	479	179	164	94	15	601	12560

Row Percentages

Content	Convenient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives independence	Other	N
Email/Chat	**50.08**	**32.28**	**9.34**	**2.55**	1.31	**1.12**	0.72	**0.05**	**2.53**	9524
Ringtone/Picture	**40.06**	**24.46**	**23.55**	3.98	1.22	**2.29**	*0.76*	*0.31*	**3.36**	654
News/Information	**34.80**	**20.80**	**20.00**	**18.80**	1.80	1.40	*0.80*	*0.40*	**1.20**	500
Traffic/Transportation	**51.76**	**23.85**	10.03	**6.23**	**2.71**	**2.44**	*0.81*	*0.27*	**1.90**	369
Entertainment	**30.91**	**16.00**	**31.64**	**14.18**	1.45	**2.18**	*1.45*	*0.00*	**2.18**	275
Weather	47.74	28.14	10.55	4.02	**2.51**	**3.02**	*1.01*	*0.50*	**2.51**	199
Banking/Trading	51.70	**22.73**	**3.98**	**10.23**	2.27	**3.41**	*1.14*	*0.57*	3.98	176
Townpages/Local info	47.62	25.40	**6.35**	*7.94*	*6.35*	*3.17*	*1.59*	*0.00*	*1.59*	63
Shopping	36.11	27.78	**25.00**	*2.78*	*0.00*	*0.00*	*2.78*	*2.78*	*2.78*	36
Other	**26.83**	**20.94**	**6.68**	**2.88**	1.31	**0.79**	**0.39**	*0.26*	**39.92**	764
Overall	47.10	29.87	10.83	3.81	1.43	1.31	0.75	0.12	4.79	12560

Actual and Expected Cell Percentages

	Convenient		Keep in touch		Pass time		Keep informed		Save time/ energy		Expand social life		Helps me fit in		Gives independence		Other	
Content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Email/Chat	**37.98**	**35.72**	**24.47**	**22.65**	**7.09**	**8.21**	**1.93**	**2.89**	1.00	1.08	**0.85**	**0.99**	0.55	0.57	**0.04**	**0.09**	**1.92**	**3.63**
Ringtone/ Picture	**2.09**	**2.45**	**1.27**	**1.56**	**1.23**	**0.56**	0.21	0.20	0.06	0.07	**0.12**	**0.07**	*0.04*	*0.04*	*0.02*	*0.01*	**0.18**	**0.25**
News/Info	**1.39**	**1.88**	**0.83**	**1.19**	**0.80**	**0.43**	**0.75**	**0.15**	0.07	0.06	0.06	0.05	*0.03*	*0.03*	*0.02*	*0.00*	**0.05**	**0.19**
Traffic/ Transport	**1.52**	**1.38**	**0.70**	**0.88**	0.29	0.32	**0.18**	**0.11**	**0.08**	**0.04**	**0.07**	**0.04**	*0.02*	*0.02*	*0.01*	*0.00*	**0.06**	**0.14**
Entertain	**0.68**	**1.03**	**0.35**	**0.65**	**0.69**	**0.24**	**0.31**	**0.08**	0.03	0.03	**0.05**	**0.03**	*0.03*	*0.02*	*0.00*	*0.00*	**0.05**	**0.10**
Weather	0.76	0.75	0.45	0.47	0.17	0.17	0.06	0.06	**0.04**	**0.02**	**0.05**	**0.02**	*0.02*	*0.01*	*0.01*	*0.00*	**0.04**	**0.08**
Banking/ Trading	0.72	0.66	**0.32**	**0.42**	**0.06**	**0.15**	**0.14**	**0.05**	0.03	0.02	**0.05**	**0.02**	*0.02*	*0.01*	*0.01*	*0.00*	0.06	0.07
Townpgs/ Local info	0.24	0.24	0.13	0.15	**0.03**	**0.05**	*0.04*	*0.02*	*0.03*	*0.01*	*0.02*	*0.01*	*0.01*	*0.00*	*0.00*	*0.00*	*0.01*	*0.02*
Shopping	0.10	0.14	0.08	0.09	**0.07**	**0.03**	*0.01*	*0.01*	*0.00*	*0.00*	*0.00*	*0.00*	*0.01*	*0.00*	*0.01*	*0.00*	*0.01*	*0.01*
Other	**1.63**	**2.87**	**1.27**	**1.82**	**0.41**	**0.66**	**0.18**	**0.23**	0.08	0.09	**0.05**	**0.08**	**0.02**	**0.05**	*0.02*	*0.01*	**2.43**	**0.29**

[1]Significant at $p < .0001$.

TABLE A47
Interaction[1] of 'Daily Usage' and 'Like Best'

Column Percentages

Minutes/day	Convenient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives independence	Other	Overall
Less than 5	54.51	**54.98**	**43.14**	**37.63**	**47.43**	**47.27**	**43.62**	35.71	**81.65**	53.64
5-10	20.92	21.08	**23.38**	22.25	22.29	22.42	**27.66**	*14.29*	**9.17**	20.85
10-20	10.78	10.77	**14.97**	**15.38**	**13.71**	12.12	12.77	*7.14*	**3.12**	11.15
20-30	6.24	**5.76**	**8.85**	**10.81**	**8.57**	5.45	6.38	*14.29*	**2.57**	6.43
30-60	4.20	4.17	**5.83**	**7.28**	5.14	4.24	*4.26*	*14.29*	**1.47**	4.39
60-90	**1.15**	1.33	**1.84**	**2.49**	*1.71*	**3.64**	*2.13*	*7.14*	**0.73**	1.37
Over 90	2.21	**1.92**	1.99	**4.16**	*1.14*	**4.85**	*3.19*	*7.14*	**1.28**	2.17
N	5836	3696	1356	481	175	165	94	14	545	12362

Row Percentages

Minutes/day	Convenient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives independence	Other	N
Less than 5	47.97	**30.64**	**8.82**	**2.73**	**1.25**	**1.18**	**0.62**	0.08	**6.71**	6631
5-10	47.36	30.22	**12.30**	4.15	1.51	1.44	**1.01**	*0.08*	**1.94**	2578
10-20	45.65	28.88	**14.73**	**5.37**	**1.74**	1.45	0.87	*0.07*	**1.23**	1378
20-30	45.79	**26.79**	**15.09**	**6.54**	**1.89**	1.13	0.75	*0.25*	**1.76**	795
30-60	45.12	28.36	**14.55**	**6.45**	1.66	1.29	*0.74*	*0.37*	**1.47**	543
60-90	**39.64**	28.99	**14.79**	**7.10**	*1.78*	**3.55**	*1.18*	*0.59*	**2.37**	169
Over 90	48.13	**26.49**	10.07	**7.46**	*0.75*	**2.99**	*1.12*	*0.37*	**2.61**	268
Overall	47.21	19.90	10.97	3.89	1.42	1.33	0.76	0.11	4.41	12362

Actual and Expected Cell Percentages

Min/ day	Convenient		Keep in touch		Pass time		Keep informed		Save time/ energy		Expand social life		Helps me fit in		Gives independence		Other	
	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
< 5	25.73	25.32	**16.44**	**16.04**	**4.73**	**5.88**	**1.46**	**2.09**	**0.67**	**0.76**	**0.63**	**0.72**	**0.33**	**0.41**	0.04	0.06	**3.60**	**2.36**
5-10	9.88	9.85	6.30	6.24	**2.56**	**2.29**	0.87	0.81	0.32	0.30	0.30	0.28	**0.21**	**0.16**	*0.02*	*0.02*	**0.40**	**0.92**
10-20	5.09	5.26	3.22	3.33	**1.64**	**1.22**	**0.60**	**0.43**	**0.19**	**0.16**	0.16	0.15	0.10	0.08	*0.01*	*0.01*	**0.14**	**0.49**
20-30	2.94	3.04	**1.72**	**1.92**	**0.97**	**0.71**	**0.42**	**0.25**	**0.12**	**0.09**	0.07	0.09	0.05	0.05	*0.02*	*0.01*	**0.11**	**0.28**
30-60	1.98	2.07	1.25	1.31	**0.64**	**0.48**	**0.28**	**0.17**	0.07	0.06	0.06	0.06	*0.03*	*0.03*	*0.02*	*0.00*	**0.06**	**0.19**
60-90	**0.54**	**0.65**	0.40	0.41	**0.20**	**0.15**	**0.10**	**0.05**	*0.02*	*0.02*	**0.05**	**0.02**	*0.02*	*0.01*	*0.01*	*0.00*	**0.03**	**0.06**
> 90	1.04	1.02	**0.57**	**0.65**	0.22	0.24	**0.16**	**0.08**	*0.02*	*0.03*	**0.06**	**0.03**	*0.02*	*0.02*	*0.01*	*0.00*	**0.06**	**0.10**

[1]Significant at $p < .0001$.

TABLE A48
Interaction[1] of 'Pay Extra for Content' and 'Like Best'

Column Percentages

Pay for content	Conven-ient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives independ-ence	Other	Overall
Yes	25.83	**22.18**	**37.36**	**46.04**	23.33	29.09	**31.58**	*13.33*	**10.05**	25.99
No	61.68	**66.59**	**48.50**	**44.17**	**67.78**	**53.33**	**47.37**	**40.00**	**66.19**	61.15
Don't know	12.49	**11.23**	**14.14**	**9.79**	**8.89**	**17.58**	**21.05**	**46.67**	**23.76**	12.86
N	5974	3819	1365	480	180	165	95	15	627	12720

Row Percentages

Pay for content	Conven-ient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives independ-ence	Other	N
Yes	46.67	**25.62**	**15.43**	**6.68**	1.27	1.45	**0.91**	*0.06*	**1.91**	3306
No	47.38	**32.69**	**8.51**	**2.73**	**1.57**	**1.13**	**0.58**	**0.08**	**5.34**	7778
Don't know	45.60	**26.22**	**11.80**	**2.87**	**0.98**	**1.77**	**1.22**	**0.43**	**9.11**	1636
Overall	46.97	30.02	10.73	3.77	1.42	1.30	0.75	0.12	4.93	12720

Actual and Expected Cell Percentages

Pay for	Convenient		Keep in touch		Pass time		Keep informed		Save time/ energy		Expand social life		Helps me fit in		Gives independ-ence		Other	
content	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
Yes	12.13	12.21	**6.66**	**7.80**	**4.01**	**2.79**	**1.74**	**0.98**	0.33	0.37	0.38	0.34	**0.24**	**0.19**	*0.02*	*0.03*	**0.50**	**1.28**
No	28.97	28.72	**19.99**	**18.36**	**5.20**	**6.56**	**1.67**	**2.31**	**0.96**	**0.87**	**0.69**	**0.79**	**0.35**	**0.46**	**0.05**	**0.07**	**3.26**	**3.01**
Don't know	5.86	6.04	**3.37**	**3.86**	**1.52**	**1.38**	**0.37**	**0.49**	**0.13**	**0.18**	**0.23**	**0.17**	**0.16**	**0.10**	**0.06**	**0.02**	**1.17**	**0.63**

[1]Significant at $p < .0001$.

TABLE A49
Interaction[1] of 'Monthly Spending for Content' and 'Like Best'

Column Percentages

Yen/month	Convenient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives independence	Other	Overall
Less than 250	29.48	**31.60**	**22.58**	**22.27**	29.55	**15.69**	29.03	*33.33*	**47.92**	28.81
250-500	30.94	**35.21**	**34.54**	28.82	34.09	31.37	25.81	*0.00*	**17.71**	32.03
501-1000	15.29	15.46	16.89	**20.09**	**22.73**	15.69	*12.90*	*66.67*	**11.46**	15.90
Over 1000	24.30	**17.72**	**26.00**	**28.82**	**13.64**	**37.25**	**32.26**	*0.00*	22.92	23.25
N	1642	886	527	229	44	51	31	3	96	3509

Row Percentages

Yen/month	Convenient	Keep in touch	Pass time	Keep informed	Save time/ energy	Expand social life	Helps me fit in	Gives independence	Other	N
Less than 250	47.87	**27.70**	**11.77**	**5.04**	1.29	**0.79**	0.89	*0.10*	**4.55**	1011
250-500	45.20	**27.76**	**16.19**	5.87	1.33	1.42	0.71	*0.00*	**1.51**	1124
501-1000	44.98	24.55	15.95	**8.24**	**1.79**	1.43	*0.72*	*0.36*	**1.97**	558
Over 1000	48.90	**19.24**	**16.79**	**8.09**	**0.74**	**2.33**	**1.23**	*0.00*	2.70	816
Overall	46.79	25.25	15.02	6.53	1.25	1.45	0.88	0.09	2.74	3509

Actual and Expected Cell Percentages

Yen/ month	Convenient		Keep in touch		Pass time		Keep informed		Save time/ energy		Expand social life		Helps me fit in		Gives independence		Other	
	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.
< 250	13.79	13.48	**7.98**	**7.27**	**3.39**	**4.33**	**1.45**	**1.88**	0.37	0.36	**0.23**	**0.42**	0.26	0.25	*0.03*	*0.02*	**1.31**	**0.79**
250-500	14.48	14.99	**8.89**	**8.09**	**5.19**	**4.81**	1.88	2.09	0.43	0.40	0.46	0.47	0.23	0.28	*0.00*	*0.03*	**0.48**	**0.88**
501-1000	7.15	7.44	3.90	4.02	2.54	2.39	**1.31**	**1.04**	**0.28**	**0.20**	0.23	0.23	*0.11*	*0.14*	*0.06*	*0.01*	**0.31**	**0.44**
> 1000	11.37	10.88	**4.47**	**5.87**	**3.90**	**3.49**	**1.88**	**1.52**	**0.17**	**0.29**	**0.54**	**0.34**	**0.28**	**0.21**	*0.00*	*0.02*	0.63	0.64

[1]Significant at $p < .0001$. Do not spend extra for content = 7778; Missing = 2605.