

Supplementary Information

Part 1. *Proportions of purpose-of-use separately by the five adopter categories*

Detailed frequency distributions are provided in the following tables in this part. For a more intuitive and visually accessible presentation of the results, an accompanying slideshow is available via the URL and QR code below. Readers are encouraged to consult this supplementary material as appropriate. For optimal viewing, the use of Google Chrome is recommended.

URL

<https://x.gd/1eHWm>

QR code



Supplementary Table S1. *Proportions of purpose-of-use in Laggards*

Items	Frequently	sometimes	occasionally	never	Missing value
To search for information	13 (2.4)	31 (5.7)	15 (2.8)	481 (89.1)	0 (0)
To obtain advice on health	7 (1.3)	12 (2.2)	17 (3.1)	504 (93.3)	0 (0)
To write texts such as letters	5 (0.9)	11 (2)	13 (2.4)	511 (94.6)	0 (0)
To expand hobbies and interests	2 (0.4)	17 (3.1)	12 (2.2)	508 (94.1)	1 (0.2)
To obtain information about going out	4 (0.7)	10 (1.9)	20 (3.7)	506 (93.7)	0 (0)
To create topics or conversation	3 (0.6)	2 (0.4)	12 (2.2)	523 (96.9)	0 (0)
To have someone to talk to	4 (0.7)	3 (0.6)	11 (2)	521 (96.5)	1 (0.2)
To create documents for work	7 (1.3)	4 (0.7)	11 (2)	518 (95.9)	0 (0)
To generate ideas	6 (1.1)	4 (0.7)	10 (1.9)	518 (95.9)	2 (0.4)
To learn new knowledge or skills	4 (0.7)	10 (1.9)	14 (2.6)	511 (94.6)	1 (0.2)
To translate or explain complex information	4 (0.7)	8 (1.5)	15 (2.8)	510 (94.4)	3 (0.6)

Supplementary Table S2. *Proportions of purpose-of-use in Late majority*

Items	Frequently	sometimes	occasionally	never	Missing value
To search for information	20 (4.7)	42 (10)	31 (7.3)	329 (78)	0 (0)
To obtain advice on health	7 (1.7)	22 (5.2)	21 (5)	371 (87.9)	1 (0.2)
To write texts such as letters	3 (0.7)	16 (3.8)	20 (4.7)	383 (90.8)	0 (0)
To expand hobbies and interests	3 (0.7)	21 (5)	25 (5.9)	371 (87.9)	2 (0.5)
To obtain information about going out	6 (1.4)	18 (4.3)	23 (5.5)	375 (88.9)	0 (0)
To create topics or conversation	2 (0.5)	9 (2.1)	18 (4.3)	393 (93.1)	0 (0)
To have someone to talk to	4 (0.9)	7 (1.7)	12 (2.8)	399 (94.5)	0 (0)
To create documents for work	1 (0.2)	16 (3.8)	20 (4.7)	385 (91.2)	0 (0)
To generate ideas	0 (0)	14 (3.3)	9 (2.1)	399 (94.5)	0 (0)
To learn new knowledge or skills	6 (1.4)	18 (4.3)	18 (4.3)	380 (90)	0 (0)
To translate or explain complex information	7 (1.7)	16 (3.8)	25 (5.9)	374 (88.6)	0 (0)

Supplementary Table S3. *Proportions of purpose-of-use in Early majority*

Items	Frequently	sometimes	occasionally	never	Missing value
To search for information	76 (6.3)	201 (16.5)	118 (9.7)	818 (67.3)	3 (0.2)
To obtain advice on health	22 (1.8)	80 (6.6)	77 (6.3)	1036 (85.2)	1 (0.1)
To write texts such as letters	18 (1.5)	63 (5.2)	69 (5.7)	1064 (87.5)	2 (0.2)
To expand hobbies and interests	15 (1.2)	73 (6)	88 (7.2)	1037 (85.3)	3 (0.2)
To obtain information about going out	21 (1.7)	78 (6.4)	101 (8.3)	1014 (83.4)	2 (0.2)
To create topics or conversation	3 (0.2)	27 (2.2)	56 (4.6)	1128 (92.8)	2 (0.2)
To have someone to talk to	4 (0.3)	25 (2.1)	47 (3.9)	1137 (93.5)	3 (0.2)
To create documents for work	17 (1.4)	41 (3.4)	56 (4.6)	1099 (90.4)	3 (0.2)
To generate ideas	10 (0.8)	32 (2.6)	53 (4.4)	1118 (91.9)	3 (0.2)
To learn new knowledge or skills	14 (1.2)	83 (6.8)	94 (7.7)	1021 (84)	4 (0.3)
To translate or explain complex information	30 (2.5)	97 (8)	101 (8.3)	983 (80.8)	5 (0.4)

Supplementary Table S4. *Proportions of purpose-of-use in Early adopters*

Items	Frequently	sometimes	occasionally	never	Missing value
To search for information	118 (15.6)	207 (27.5)	95 (12.6)	332 (44)	2 (0.3)
To obtain advice on health	40 (5.3)	122 (16.2)	83 (11)	508 (67.4)	1 (0.1)
To write texts such as letters	26 (3.4)	98 (13)	84 (11.1)	539 (71.5)	7 (0.9)
To expand hobbies and interests	46 (6.1)	106 (14.1)	81 (10.7)	517 (68.6)	4 (0.5)
To obtain information about going out	49 (6.5)	119 (15.8)	82 (10.9)	503 (66.7)	1 (0.1)
To create topics or conversation	14 (1.9)	57 (7.6)	72 (9.5)	608 (80.6)	3 (0.4)
To have someone to talk to	12 (1.6)	42 (5.6)	58 (7.7)	640 (84.9)	2 (0.3)
To create documents for work	37 (4.9)	96 (12.7)	52 (6.9)	566 (75.1)	3 (0.4)
To generate ideas	23 (3.1)	84 (11.1)	50 (6.6)	592 (78.5)	5 (0.7)
To learn new knowledge or skills	44 (5.8)	144 (19.1)	75 (9.9)	488 (64.7)	3 (0.4)
To translate or explain complex information	64 (8.5)	145 (19.2)	91 (12.1)	454 (60.2)	0 (0)

Supplementary Table S5. *Proportions of purpose-of-use in Innovators*

Items	Frequently	sometimes	occasionally	never	Missing value
To search for information	24 (35.3)	15 (22.1)	9 (13.2)	20 (29.4)	0 (0)
To obtain advice on health	7 (10.3)	13 (19.1)	7 (10.3)	41 (60.3)	0 (0)
To write texts such as letters	6 (8.8)	11 (16.2)	13 (19.1)	37 (54.4)	1 (1.5)
To expand hobbies and interests	8 (11.8)	13 (19.1)	9 (13.2)	37 (54.4)	1 (1.5)
To obtain information about going out	7 (10.3)	14 (20.6)	9 (13.2)	38 (55.9)	0 (0)
To create topics or conversation	4 (5.9)	6 (8.8)	10 (14.7)	46 (67.6)	2 (2.9)
To have someone to talk to	4 (5.9)	6 (8.8)	5 (7.4)	53 (77.9)	0 (0)
To create documents for work	6 (8.8)	15 (22.1)	7 (10.3)	40 (58.8)	0 (0)
To generate ideas	4 (5.9)	11 (16.2)	7 (10.3)	45 (66.2)	1 (1.5)
To learn new knowledge or skills	11 (16.2)	16 (23.5)	5 (7.4)	34 (50)	2 (2.9)
To translate or explain complex information	10 (14.7)	15 (22.1)	10 (14.7)	32 (47.1)	1 (1.5)

Part 2. *Proportions of the orientation separately by the five adopter categories*

Detailed frequency distributions are provided in the following tables in this part. For a more intuitive and visually accessible presentation of the results, an accompanying slideshow is available via the URL and QR code below. Readers are encouraged to consult this supplementary material as appropriate. For optimal viewing, the use of Google Chrome is recommended.

URL

<https://x.gd/5C5w3>

QR code



Supplementary Table S6. *Proportions of the orientation in Laggards*

Item	Want fully "by human"	Prefer to "by human"	Don't know	Prefer to "by AI"	Want fully "by AI"	Missing value
A partner for conversation	281 (52)	117 (21.7)	105 (19.4)	25 (4.6)	11 (2)	1 (0.2)
To consult about health-related concerns	265 (49.1)	123 (22.8)	93 (17.2)	41 (7.6)	15 (2.8)	3 (0.6)
Monitoring	176 (32.6)	154 (28.5)	102 (18.9)	67 (12.4)	36 (6.7)	5 (0.9)
Physical assistance	202 (37.4)	137 (25.4)	104 (19.3)	58 (10.7)	37 (6.9)	2 (0.4)
Management of medication	218 (40.4)	127 (23.5)	97 (18)	62 (11.5)	31 (5.7)	5 (0.9)
Emotional support	267 (49.4)	107 (19.8)	99 (18.3)	43 (8)	17 (3.1)	7 (1.3)
Support for rehabilitation	192 (35.6)	153 (28.3)	95 (17.6)	62 (11.5)	35 (6.5)	3 (0.6)
Assistance with household tasks	187 (34.6)	149 (27.6)	98 (18.1)	59 (10.9)	40 (7.4)	7 (1.3)
Assistance with schedule management	139 (25.7)	148 (27.4)	107 (19.8)	81 (15)	63 (11.7)	2 (0.4)
Support for transportation	212 (39.3)	130 (24.1)	92 (17)	61 (11.3)	42 (7.8)	3 (0.6)
Support for financial management	204 (37.8)	116 (21.5)	113 (20.9)	61 (11.3)	43 (8)	3 (0.6)
Protection against fraud	162 (30)	140 (25.9)	103 (19.1)	65 (12)	68 (12.6)	2 (0.4)
Support for hobbies	221 (40.9)	140 (25.9)	101 (18.7)	52 (9.6)	23 (4.3)	3 (0.6)
Support in making decisions about care	201 (37.2)	158 (29.3)	97 (18)	55 (10.2)	27 (5)	2 (0.4)
Facilitating interaction with your family	274 (50.7)	95 (17.6)	109 (20.2)	47 (8.7)	15 (2.8)	0 (0)
Facilitating interaction with friends	274 (50.7)	95 (17.6)	115 (21.3)	38 (7)	16 (3)	2 (0.4)

Supplementary Table S7. *Proportions of the orientation in Late majority*

Item	Want fully "by human"	Prefer to "by human"	Don't know	Prefer to "by AI"	Want fully "by AI"	Missing value
A partner for conversation	197 (46.7)	145 (34.4)	38 (9)	34 (8.1)	8 (1.9)	0 (0)
To consult about health-related concerns	157 (37.2)	169 (40)	38 (9)	47 (11.1)	11 (2.6)	0 (0)
Monitoring	89 (21.1)	178 (42.2)	45 (10.7)	85 (20.1)	23 (5.5)	2 (0.5)
Physical assistance	105 (24.9)	153 (36.3)	44 (10.4)	88 (20.9)	31 (7.3)	1 (0.2)
Management of medication	106 (25.1)	172 (40.8)	38 (9)	73 (17.3)	32 (7.6)	1 (0.2)
Emotional support	173 (41)	137 (32.5)	49 (11.6)	51 (12.1)	12 (2.8)	0 (0)
Support for rehabilitation	114 (27)	163 (38.6)	40 (9.5)	81 (19.2)	23 (5.5)	1 (0.2)
Assistance with household tasks	106 (25.1)	147 (34.8)	38 (9)	87 (20.6)	42 (10)	2 (0.5)
Assistance with schedule management	56 (13.3)	142 (33.6)	60 (14.2)	97 (23)	66 (15.6)	1 (0.2)
Support for transportation	112 (26.5)	137 (32.5)	40 (9.5)	80 (19)	51 (12.1)	2 (0.5)
Support for financial management	115 (27.3)	124 (29.4)	49 (11.6)	79 (18.7)	51 (12.1)	4 (0.9)
Protection against fraud	63 (14.9)	148 (35.1)	41 (9.7)	104 (24.6)	66 (15.6)	0 (0)
Support for hobbies	121 (28.7)	165 (39.1)	51 (12.1)	63 (14.9)	19 (4.5)	3 (0.7)
Support in making decisions about care	130 (30.8)	171 (40.5)	43 (10.2)	62 (14.7)	15 (3.6)	1 (0.2)
Facilitating interaction with your family	181 (42.9)	128 (30.3)	64 (15.2)	40 (9.5)	8 (1.9)	1 (0.2)
Facilitating interaction with friends	175 (41.5)	135 (32)	65 (15.4)	36 (8.5)	10 (2.4)	1 (0.2)

Supplementary Table S8. *Proportions of the orientation in Early majority*

Item	Want fully "by human"	Prefer to "by human"	Don't know	Prefer to "by AI"	Want fully "by AI"	Missing value
A partner for conversation	516 (42.4)	499 (41)	93 (7.6)	90 (7.4)	16 (1.3)	2 (0.2)
To consult about health-related concerns	425 (35)	574 (47.2)	63 (5.2)	126 (10.4)	25 (2.1)	3 (0.2)
Monitoring	235 (19.3)	558 (45.9)	102 (8.4)	238 (19.6)	81 (6.7)	2 (0.2)
Physical assistance	278 (22.9)	517 (42.5)	98 (8.1)	206 (16.9)	111 (9.1)	6 (0.5)
Management of medication	279 (22.9)	508 (41.8)	79 (6.5)	219 (18)	128 (10.5)	3 (0.2)
Emotional support	484 (39.8)	454 (37.3)	124 (10.2)	123 (10.1)	26 (2.1)	5 (0.4)
Support for rehabilitation	266 (21.9)	532 (43.8)	72 (5.9)	245 (20.1)	97 (8)	4 (0.3)
Assistance with household tasks	250 (20.6)	499 (41)	86 (7.1)	238 (19.6)	141 (11.6)	2 (0.2)
Assistance with schedule management	123 (10.1)	410 (33.7)	97 (8)	320 (26.3)	262 (21.5)	4 (0.3)
Support for transportation	273 (22.5)	458 (37.7)	92 (7.6)	248 (20.4)	140 (11.5)	5 (0.4)
Support for financial management	314 (25.8)	396 (32.6)	131 (10.8)	232 (19.1)	136 (11.2)	7 (0.6)
Protection against fraud	156 (12.8)	427 (35.1)	97 (8)	298 (24.5)	230 (18.9)	8 (0.7)
Support for hobbies	343 (28.2)	533 (43.8)	120 (9.9)	160 (13.2)	56 (4.6)	4 (0.3)
Support in making decisions about care	327 (26.9)	568 (46.7)	80 (6.6)	176 (14.5)	58 (4.8)	7 (0.6)
Facilitating interaction with your family	548 (45.1)	376 (30.9)	142 (11.7)	113 (9.3)	33 (2.7)	4 (0.3)
Facilitating interaction with friends	557 (45.8)	368 (30.3)	149 (12.3)	103 (8.5)	38 (3.1)	1 (0.1)

Supplementary Table S9. *Proportions of the orientation in Early adopters*

Item	Want fully "by human"	Prefer to "by human"	Don't know	Prefer to "by AI"	Want fully "by AI"	Missing value
A partner for conversation	314 (41.6)	307 (40.7)	48 (6.4)	72 (9.5)	11 (1.5)	2 (0.3)
To consult about health-related concerns	237 (31.4)	367 (48.7)	40 (5.3)	93 (12.3)	14 (1.9)	3 (0.4)
Monitoring	151 (20)	334 (44.3)	44 (5.8)	167 (22.1)	58 (7.7)	0 (0)
Physical assistance	200 (26.5)	280 (37.1)	55 (7.3)	151 (20)	66 (8.8)	2 (0.3)
Management of medication	191 (25.3)	291 (38.6)	36 (4.8)	159 (21.1)	73 (9.7)	4 (0.5)
Emotional support	308 (40.8)	275 (36.5)	61 (8.1)	94 (12.5)	13 (1.7)	3 (0.4)
Support for rehabilitation	171 (22.7)	322 (42.7)	37 (4.9)	160 (21.2)	60 (8)	4 (0.5)
Assistance with household tasks	168 (22.3)	274 (36.3)	47 (6.2)	161 (21.4)	100 (13.3)	4 (0.5)
Assistance with schedule management	83 (11)	226 (30)	50 (6.6)	198 (26.3)	194 (25.7)	3 (0.4)
Support for transportation	165 (21.9)	278 (36.9)	46 (6.1)	164 (21.8)	96 (12.7)	5 (0.7)
Support for financial management	193 (25.6)	239 (31.7)	63 (8.4)	174 (23.1)	83 (11)	2 (0.3)
Protection against fraud	125 (16.6)	218 (28.9)	43 (5.7)	216 (28.6)	150 (19.9)	2 (0.3)
Support for hobbies	201 (26.7)	313 (41.5)	64 (8.5)	153 (20.3)	19 (2.5)	4 (0.5)
Support in making decisions about care	190 (25.2)	346 (45.9)	42 (5.6)	146 (19.4)	25 (3.3)	5 (0.7)
Facilitating interaction with your family	340 (45.1)	227 (30.1)	77 (10.2)	93 (12.3)	16 (2.1)	1 (0.1)
Facilitating interaction with friends	338 (44.8)	221 (29.3)	88 (11.7)	89 (11.8)	17 (2.3)	1 (0.1)

Supplementary Table S10. *Proportions of the orientation in Innovators*

Item	Want fully "by human"	Prefer to "by human"	Don't know	Prefer to "by AI"	Want fully "by AI"	Missing value
A partner for conversation	32 (47.1)	23 (33.8)	2 (2.9)	8 (11.8)	3 (4.4)	0 (0)
To consult about health-related concerns	26 (38.2)	27 (39.7)	1 (1.5)	7 (10.3)	7 (10.3)	0 (0)
Monitoring	14 (20.6)	31 (45.6)	3 (4.4)	10 (14.7)	9 (13.2)	1 (1.5)
Physical assistance	21 (30.9)	20 (29.4)	1 (1.5)	17 (25)	9 (13.2)	0 (0)
Management of medication	15 (22.1)	26 (38.2)	3 (4.4)	9 (13.2)	14 (20.6)	1 (1.5)
Emotional support	24 (35.3)	23 (33.8)	7 (10.3)	5 (7.4)	9 (13.2)	0 (0)
Support for rehabilitation	15 (22.1)	28 (41.2)	3 (4.4)	11 (16.2)	11 (16.2)	0 (0)
Assistance with household tasks	15 (22.1)	24 (35.3)	2 (2.9)	14 (20.6)	13 (19.1)	0 (0)
Assistance with schedule management	10 (14.7)	20 (29.4)	1 (1.5)	17 (25)	20 (29.4)	0 (0)
Support for transportation	16 (23.5)	22 (32.4)	1 (1.5)	14 (20.6)	15 (22.1)	0 (0)
Support for financial management	18 (26.5)	23 (33.8)	4 (5.9)	12 (17.6)	11 (16.2)	0 (0)
Protection against fraud	10 (14.7)	17 (25)	3 (4.4)	14 (20.6)	23 (33.8)	1 (1.5)
Support for hobbies	20 (29.4)	25 (36.8)	4 (5.9)	12 (17.6)	7 (10.3)	0 (0)
Support in making decisions about care	19 (27.9)	27 (39.7)	1 (1.5)	12 (17.6)	8 (11.8)	1 (1.5)
Facilitating interaction with your family	29 (42.6)	20 (29.4)	4 (5.9)	10 (14.7)	5 (7.4)	0 (0)
Facilitating interaction with friends	30 (44.1)	20 (29.4)	4 (5.9)	10 (14.7)	4 (5.9)	0 (0)

Part 3. Details of demographic variables

Gender

Working status data were provided by the survey company as binary variable(male or female).

Living alone

The “living alone” variable was dichotomized based on responses to the following question. Participants who selected “living alone” were coded as 1, whereas all other responses were coded as 0.

“In the following questions, we would like to ask about your living situation and daily life. First, please tell us about the family members with whom you currently live. Please select all that apply. If you live alone, please select ‘living alone’.”

- Parent(s)
- Spouse or partner (including common-law spouse/partner)
- Child(ren)
- Grandchild(ren)
- Sibling(s)
- Other
- Living alone

Working status

Working status data were provided by the survey company as information on the industry in which respondents were employed. We recoded these data into a dichotomous variable indicating not working (= 0) or working (= 1).

Economic burden

How do you view your current financial situation?

<Answer options and scoring rule>

- I have plenty of financial leeway and live without any worries = 0
- I do not have much financial leeway, but I live without too much worry = 1
- I do not have financial leeway and am somewhat worried = 2
- My finances are strained, and I am very worried = 3

Years of education

What is your latest educational background?

<Answer options and scoring rule>

- Junior High School Graduation = 9 years
- High school graduation = 12 years
- 1-year vocational school graduation = 13 years
- 2-year vocational school graduation = 14 years
- 3-year vocational school graduation = 15 years
- National Institute of Technology (KOSEN), 5-year program
- National Institute of Technology (KOSEN), 7-year program
- Junior college = 15 years
- 4-year vocational school = 16 years
- 4-year college graduate = 16 years
- Graduate school, master's degree = 18 years
- Graduate school, doctoral degree = 21 years
- Other

Subjective economic status

How do you view your current financial situation?

<Answer options and scoring rule>

- I have plenty of financial leeway and live without any worries = 0
- I do not have much financial leeway, but I live without too much worry = 1

- I do not have financial leeway and am somewhat worried = 2
- My finances are strained, and I am very worried = 3