

The Public's Perceptions and Usage of AI in Taiwan

Tong-Yi Huang

Professor, Department of Public Administration,
National Chengchi University

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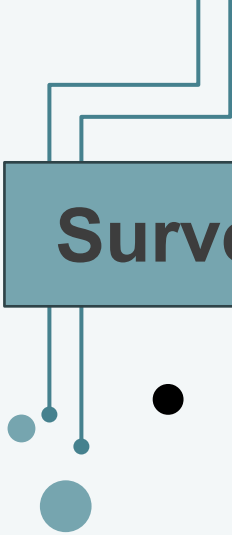
Outline

- Main Purposes
- Survey Questions
- Methods and Sample
- Descriptive
- Crosstabulation
- Conclusion



Main Purpose

- Large-scale population survey on AI
- Perceptions of AI
- Usage/experience of AI
- Differences among Groups



Survey Questions

- Reminder for survey participants: AI was described as the use of technological systems to assist with everyday tasks—for example, using chatbots to answer questions, voice or image recognition for faster services, or popular tools such as ChatGPT, DeepSeek, and Copilot to ask questions, draft documents, or create images.
- With the exception of G3, which was open-ended, all items were rated on a 5-point Likert scale.

Survey Questions

The survey questions are as follows:

- **G1.** Before participating in this interview, had you ever heard about artificial intelligence (AI)? **(Awareness)**
- **G2.** Have you ever used artificial intelligence (AI), such as the services or applications we mentioned earlier? **(Usage)**
- **G3.** What kinds of AI services or applications have you used? *(Open-ended)*

Survey Questions

- G4.** Some people believe AI can benefit society, while others think it poses many risks. In your opinion, does AI bring more benefits or more risks? **(Bnt-Rsk)**
- G5.** Some people believe AI is trustworthy, while others do not. In your opinion, do you think AI is trustworthy? **(Trust)**
- G6.** Some people believe AI can improve our quality of life, while others think it may worsen it. In your opinion, does AI improve or reduce the quality of life? **(Qulife)**
- G7.** Some people believe AI can enhance the quality of government services, while others think it may reduce it. In your opinion, does AI improve or reduce the quality of government services? **(Qulgov)**



Methods

Method: Survey (May 19-27, 2025)

Sample: 1171 (838 landline + 333 cellphone)

Analysis based on Population-weighted sample

Sample

Gender Distribution

	Frequency
Male	573 (48.9%)
Female	598 (51.1%)
Total	1171

Age Distribution

	Frequency
18-19	24 (2.0%)
20-29	149 (12.8%)
30-39	177 (15.1%)
40-49	219 (18.7%)
50-59	205 (17.5%)
60-69	204 (17.5%)
70-79	128 (10.9%)
80+	64 (5.5%)
Total	1169

Sample

Educational Attainment Distribution

	Frequency
Elementary school and below	113 (9.7%)
Junior high school	126 (10.8%)
Senior high school/Vocational high school	320 (27.4%)
Junior college	131 (11.2%)
University	370 (31.7%)
Graduate degree	107 (9.2%)
Total	1168

Geographic Distribution

	Frequency	
New Taipei City	204 (17.4%)	Six special municipalities
Taipei City	118 (10.1%)	
Taoyuan City	116 (9.9%)	
Taichung City	141 (12.0%)	
Tainan City	92 (7.9%)	
Kaohsiung City	139 (11.9%)	
Yilan County	22 (1.9%)	Non-six special municipality
Hsinchu County	29 (2.4%)	
Miaoli County	28 (2.4%)	
Changhua County	63 (5.4%)	
Nantou County	24 (2.1%)	
Yunlin County	34 (2.9%)	
Chiayi County	26 (2.2%)	
Pingtung County	41 (3.5%)	
Taitung County	11 (0.9%)	
Hualien County	16 (1.4%)	
Penghu County	6 (0.5%)	
Keelung City	19 (1.7%)	
Hsinchu City	21 (1.8%)	
Chiayi City	13 (1.1%)	
Kinmen & Lienchiang County	9 (0.7%)	
Total	1171	

G1 Awareness Distribution

- 89.8% of respondents have heard of AI.

	Frequency
1 Never	118 (10.2%)
2 Rarely	174 (15.0%)
3 Occasionally	172 (14.8%)
4 Frequently	532 (45.8%)
5 Always	166 (14.3%)
Total	1162

G2 Usage Distribution

- 45% of respondents have used AI.

	Frequency
1 No (skip to G4)	643 (55.0%)
2 Rarely	142 (12.1%)
3 Occasionally	182 (15.6%)
4 Frequently	118 (10.1%)
5 Almost daily	84 (7.2%)
Total	1169

G4 Bnt-Rsk Distribution

- 56.6% of respondents believe that AI benefits outweigh the risks.

	Frequency
1 Only risks	21 (2.0%)
2 Risks outweigh benefits	204 (19.4%)
3 Equal risks and benefits	232 (22.0%)
4 Benefits outweigh risks	554 (52.7%)
5 Only benefits	41 (3.9%)
Total	1052

G5 Trust Distribution

- 67.9% of respondents consider AI to be trustworthy.

	Frequency
1 Very untrustworthy	30 (2.9%)
2 Untrustworthy	239 (22.9%)
3 Neutral	66 (6.3%)
4 Trustworthy	633 (60.6%)
5 Very trustworthy	76 (7.3%)
Total	1045

G6 Qulife Distribution

- 82.6% of respondents believe that AI will improve quality of life.

	Frequency
1 Only reduces quality of life	45 (4.2%)
2 Mostly reduces quality of life	98 (9.2%)
3 Neither improves nor reduces	43 (4.1%)
4 Mostly improves quality of life	686 (64.0%)
5 Only improves quality of life	199 (18.6%)
Total	1071

G7 Qulgov Distribution

- 64.8% of respondents believe that AI will improve the quality of government services.

	Frequency
1 Only reduces service quality	99 (9.6%)
2 Mostly reduces service quality	240 (23.2%)
3 Neither improves nor reduces	24 (2.4%)
4 Mostly improves service quality	499 (48.4%)
5 Only improves service quality	170 (16.4%)
Total	1031

G2 Usage (Gender Difference)

- **No significant gender difference** was found in AI usage. ($p=0.347$)

	Have Used	Never Used	Sample
Male	262 (49.8%)	331 (48.4%)	573 (48.9%)
Female	264 (50.2%)	332 (51.6%)	598 (51.1%)
Total	527	643	1171

Weighted frequencies rounded to nearest whole number; totals may not match exactly.

G2 Usage (Age Difference)

- Age showed a statistically significant difference in AI usage ($p < .001$), with usage decreasing as age increased.

- 18–19: 100% used
- 20–49: 70.2% of users; 27.2% of non-users
- 60+: 8.8% of users; 54.5% of non-users

	Have Used	Never Used	Sample
18-19	24 (4.5%)	0 (0%)	24 (2.0%)
20-29	127 (24.1%)	22 (3.5%)	149 (12.8%)
30-39	118 (22.5%)	57 (8.9%)	177 (15.1%)
40-49	124 (23.6%)	95 (14.8%)	219 (18.7%)
50-59	87 (16.6%)	117 (18.3%)	205 (17.5%)
60-69	36 (6.8%)	168 (26.3%)	204 (17.5%)
70-79	9 (1.7%)	119 (18.5%)	128 (10.9%)
80+	2 (0.3%)	62 (9.7%)	64 (5.5%)
Total	527	641	1169

G2 Usage (Education Difference)

- AI usage was significantly associated with education level ($p < .001$); those with higher education were more likely to have used AI.

Junior high or below:

2.9% of users; 35% of non-users

University and above:

69.7% of users; 17.2% of non-users

	Have Used	Never Used	Sample
Elementary school and below	5 (0.9%)	108 (16.9%)	113 (9.7%)
Junior high school	10 (2.0%)	116 (18.1%)	126 (10.8%)
Senior high school / Vocational high school	92 (17.4%)	229 (35.6%)	320 (27.4%)
Junior college	52 (10.0%)	78 (12.2%)	131 (11.2%)
University	269 (51.2%)	102 (15.8%)	370 (31.7%)
Graduate degree	97 (18.5%)	9 (1.4%)	107 (9.2%)
Total	525	642	1168

G2 Usage (Geographic Difference)

- AI usage was significantly higher among residents of the six special municipalities ($p < .001$).

Six special municipalities:
73.3% of users; 66% of non-users

Non-six special municipalities:
26.7% of users; 34.1% of non-users

	Have Used	Never Used	Sample
New Taipei City	108 (20.4%)	96 (15.0%)	204 (17.4%)
Taipei City	55 (10.5%)	63 (9.9%)	118 (10.1%)
Taoyuan City	58 (11.1%)	57 (8.9%)	116 (9.9%)
Taichung City	66 (12.6%)	73 (11.4%)	141 (12.0%)
Tainan City	34 (6.4%)	59 (9.2%)	92 (7.9%)
Kaohsiung City	65 (12.3%)	74 (11.6%)	139 (11.9%)
Yilan County	9 (1.7%)	13 (2.0%)	22 (1.9%)
Hsinchu County	10 (1.9%)	19 (2.9%)	29 (2.4%)
Miaoli County	13 (2.4%)	15 (2.4%)	28 (2.4%)
Changhua County	19 (3.7%)	44 (6.8%)	63 (5.4%)
Nantou County	10 (1.9%)	15 (2.3%)	24 (2.1%)
Yunlin County	12 (2.3%)	22 (3.4%)	34 (2.9%)
Chiayi County	9 (1.8%)	16 (2.6%)	26 (2.2%)
Pingtung County	14 (2.7%)	27 (4.1%)	41 (3.5%)
Taitung County	3 (0.5%)	8 (1.2%)	11 (0.9%)
Hualien County	7 (1.3%)	9 (1.4%)	16 (1.4%)
Penghu County	4 (0.8%)	1 (0.2%)	6 (0.5%)
Keelung City	6 (1.2%)	13 (2.0%)	19 (1.7%)
Hsinchu City	13 (2.5%)	8 (1.2%)	21 (1.8%)
Chiayi City	6 (1.1%)	7 (1.0%)	13 (1.1%)
Kinmen & Lienchiang County	5 (0.9%)	4 (0.6%)	9 (0.7%)
Total	527	643	1171

G3 Respondents' AI Service or Usage Experiences

Code	Purpose	Frequency
A	Information Query & Search	355
B	Document Processing & Writing	111
C	Image Processing & Generation	106
D	Daily Life Applications & Entertainment	50
E	Data Analysis & Processing	44
F	Customer Service & Interactive Applications	35
G	Translation Services	33
H	Education & Learning	25
I	Programming Development & Technology	24
J	Smart Devices & Automation	17
K	Professional Service Applications	14
L	Others/Trial Testing	15

Top 3 AI functions used:

- **Information Query & Search**
- **Document Processing & Writing**
- **Image Processing & Generation**

Information Query & Search

Among respondents who used AI for

Information Query & Search:

- Over **90%** were under the age of 60, indicating a younger age profile.
- **70.8%** held a university degree or higher, reflecting a higher educational level.
- A higher proportion resided in the **six special municipalities** compared to the overall population.

Gender Distribution

	Frequency	Population
Male	164 (49.5%)	573 (48.9%)
Female	167 (50.5%)	598 (51.1%)
Total	332	1171

Age Distribution

	Frequency	Population
18-19	10 (3.1%)	24 (2.0%)
20-29	79 (23.8%)	149 (12.8%)
30-39	85 (25.5%)	177 (15.1%)
40-49	79 (23.9%)	219 (18.7%)
50-59	58 (17.5%)	205 (17.5%)
60-69	17 (5.0%)	204 (17.5%)
70-79	3 (0.9%)	128 (10.9%)
80+	1 (0.3%)	64 (5.5%)
Total	332	1169

Information Query & Search

Educational Attainment Distribution

	Frequency	Population
Elementary school and below	5 (1.4%)	113 (9.7%)
Junior high school	4 (1.3%)	126 (10.8%)
Senior high school/ Vocational high school	55 (16.6%)	320 (27.4%)
Junior college	33 (9.9%)	131 (11.2%)
University	172 (51.8%)	370 (31.7%)
Graduate degree	63 (19.0%)	107 (9.2%)
Total	332	1168

Geographic Distribution

	Frequency	Population
New Taipei City	67 (20.3%)	204 (17.4%)
Taipei City	33 (9.8%)	118 (10.1%)
Taoyuan City	37 (11.2%)	116 (9.9%)
Taichung City	44 (13.4%)	141 (12.0%)
Tainan City	25 (7.6%)	92 (7.9%)
Kaohsiung City	33 (10.1%)	139 (11.9%)
Yilan County	5 (1.5%)	22 (1.9%)
Hsinchu County	8 (2.4%)	29 (2.4%)
Miaoli County	9 (2.7%)	28 (2.4%)
Changhua County	13 (3.9%)	63 (5.4%)
Nantou County	7 (2.2%)	24 (2.1%)
Yunlin County	10 (3.1%)	34 (2.9%)
Chiayi County	4 (1.1%)	26 (2.2%)
Pingtung County	10 (2.9%)	41 (3.5%)
Taitung County	1 (0.4%)	11 (0.9%)
Hualien County	4 (1.2%)	16 (1.4%)
Penghu County	2 (0.7%)	6 (0.5%)
Keelung City	3 (0.9%)	19 (1.7%)
Hsinchu City	11 (3.2%)	21 (1.8%)
Chiayi City	3 (1.0%)	13 (1.1%)
Kinmen & Lienchiang County	1 (0.3%)	9 (0.7%)
Total	332	1171

Document Processing & Writing

Among respondents who used AI for

Document Processing & Writing:

- Over **80% were under the age of 50**, suggesting a younger demographic.
- **85% held a university degree or higher**, indicating a strong educational background.
- A higher proportion resided in the **six special municipalities** compared to the overall population distribution.

Gender Distribution

	Frequency	Population
Male	49 (50.1%)	573 (48.9%)
Female	49 (49.9%)	598 (51.1%)
Total	99	1171

Age Distribution

	Frequency	Population
18-19	7 (7.3%)	24 (2.0%)
20-29	26 (26.0%)	149 (12.8%)
30-39	24 (24.4%)	177 (15.1%)
40-49	25 (25.8%)	219 (18.7%)
50-59	13 (13.4%)	205 (17.5%)
60-69	3 (3.2%)	204 (17.5%)
70-79	0 (0.0%)	128 (10.9%)
80+	0 (0.0%)	64 (5.5%)
Total	99	1169

Document Processing & Writing

Educational Attainment Distribution

	Frequency	sample
Elementary school and below	0 (0.0%)	113 (9.7%)
Junior high school	0 (0.0%)	126 (10.8%)
Senior high school / Vocational high school	9 (9.4%)	320 (27.4%)
Junior college	6 (5.6%)	131 (11.2%)
University	63 (63.7%)	370 (31.7%)
Graduate degree	21 (21.3%)	107 (9.2%)
Total	99	1168

Geographic Distribution

	Frequency	sample
New Taipei City	29 (29.4%)	204 (17.4%)
Taipei City	13 (13.5%)	118 (10.1%)
Taoyuan City	9 (8.7%)	116 (9.9%)
Taichung City	15 (15.0%)	141 (12.0%)
Tainan City	5 (5.5%)	92 (7.9%)
Kaohsiung City	8 (7.9%)	139 (11.9%)
Yilan County	2 (2.2%)	22 (1.9%)
Hsinchu County	1 (1.0%)	29 (2.4%)
Miaoli County	1 (1.5%)	28 (2.4%)
Changhua County	1 (1.1%)	63 (5.4%)
Nantou County	0 (0.0%)	24 (2.1%)
Yunlin County	0 (0.0%)	34 (2.9%)
Chiayi County	3 (3.0%)	26 (2.2%)
Pingtung County	4 (4.3%)	41 (3.5%)
Taitung County	0 (0.0%)	11 (0.9%)
Hualien County	1 (0.6%)	16 (1.4%)
Penghu County	0 (0.0%)	6 (0.5%)
Keelung City	1 (0.7%)	19 (1.7%)
Hsinchu City	4 (4.0%)	21 (1.8%)
Chiayi City	2 (1.8%)	13 (1.1%)
Kinmen & Lienchiang County	2 (1.8%)	9 (0.7%)
Total	99	1171

Image Processing & Generation

Among respondents who used AI for **Image Processing & Generation**:

- Females slightly outnumbered males (53.2% vs. 46.8%).
- 92.6% were aged between 18 and 59, showing a concentration in the working-age group.
- 73.7% had at least a university degree, indicating a relatively high level of education.

Gender Distribution

	Frequency	Population
Male	44 (46.8%)	573 (48.9%)
Female	50 (53.2%)	598 (51.1%)
Total	94	1171

Age Distribution

	Frequency	Population
18-19	2 (2.1%)	24 (2.0%)
20-29	18 (19.0%)	149 (12.8%)
30-39	20 (21.5%)	177 (15.1%)
40-49	28 (29.7%)	219 (18.7%)
50-59	19 (20.3%)	205 (17.5%)
60-69	6 (6.7%)	204 (17.5%)
70-79	1 (0.8%)	128 (10.9%)
80+	0 (0.0%)	64 (5.5%)
Total	94	1169

Image Processing & Generation

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University	50 (52.7%)	370 (31.7%)
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Geographic Distribution

	Frequency	Population
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Taipei City	10 (10.4%)	118 (10.1%)
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Tainan City	9 (9.1%)	92 (7.9%)
Kaohsiung City	5 (5.2%)	139 (11.9%)
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Nantou County	1 (1.5%)	24 (2.1%)
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Pingtung County	1 (1.0%)	41 (3.5%)
Taitung County	1 (1.0%)	11 (0.9%)
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Penghu County	0 (0.0%)	6 (0.5%)
Keelung City	1 (1.3%)	19 (1.7%)
Hsinchu City	4 (3.9%)	21 (1.8%)
Chiayi City	2 (2.5%)	13 (1.1%)
Kinmen & Lienchiang County	3 (3.0%)	9 (0.7%)
Total	94	1171

Attitudes and Usage t-Test by Gender

- Males more positive about AI benefits and trustworthiness than females

Variable	Male (M, SD)	Female (M, SD)	t	df	p
Awareness	3.43 (1.22)	3.35 (1.81)	1.01	1160	0.313
Usage	2.06 (1.36)	1.99 (1.29)	0.94	1167	0.347
Bnt-Rsk	3.45 (0.89)	3.30 (0.92)	2.63	1050	0.009**
Trust	3.53 (1.03)	3.40 (0.99)	2.16	1043	0.031*
Qulife	3.83 (0.95)	3.84 (0.99)	-0.06	1069	0.949
Qulgov	3.44 (1.27)	3.34 (1.27)	1.16	1029	0.246

***p < .001, **p < .01, *p < .05

Age Group Analysis Results (Welch's Test)

- Age was categorized into four groups: 18–29, 30–49, 50–69, and 70+.
- Younger respondents more positive about AI awareness, usage and benefits, quality of life and governance, except for trust

Variable	Welch's F(df ₁ , df ₂)	p	Post Hoc Comparison Summary (Games-Howell)
Awareness	45.13 (3, 502.24)	< .001***	18–29 > 50–69; 18–29 > 70+; 30–49 > 50–69; 30–49 > 70+; 50–69 > 70+
Usage	207.97 (3, 532.37)	< .001***	All groups significantly different
Bnt-Rsk	11.27 (3, 423.44)	< .001***	18–29 > 30–49; 18–29 > 50–69; 18–29 > 70+; 30–49 > 50–69
Trust	2.00 (3, 422.00)	0.11	No significant differences
Qulife	9.12 (3, 437.40)	< .001***	18–29 > 50–69; 18–29 > 70+; 30–49 > 70+
Qulgov	3.13 (3, 417.03)	0.026*	18–29 > 50–69

***p < .001, **p < .01, *p < .05

Welch's ANOVA was used due to heterogeneity of variance.
Post-hoc comparisons employed Games-Howell tests.

Educational Attainment Analysis Results (Welch's Test)

- Education was categorized into four groups: elementary school and below, junior high school, senior high school/vocational school, and college/ university and above.
- Higher educated respondents consistently show more positive AI perceptions across all measures, with AI usage showing the largest difference.

Variable	Welch's F(df ₁ , df ₂)	p	Post Hoc Comparison Summary (Games-Howell)
Awareness	115.79 (3, 286.76)	< .001***	Higher education > Others
Usage	247.88 (3, 439.34)	< .001***	Higher education > Others
Bnt-Rsk	14.20 (3, 203.87)	< .001***	Higher education > Others
Trust	10.77 (3, 199.57)	< .001***	Higher education > Others
Qulife	13.16 (3, 212.06)	< .001***	Higher education > Others
Qulgov	5.87 (3, 195.33)	< .001***	Higher education > Others

***p < .001, **p < .01, *p < .05

Welch's ANOVA was used due to heterogeneity of variance.
Post-hoc comparisons employed Games-Howell tests.

Geographic distribution Analysis Results (Welch's Test)

- Urban residents show higher AI awareness and usage, but similar attitudes with others.

Variable	Six special municipality (M, SD)	Non-six special municipality (M, SD)	t	df	p
Awareness	3.50 (1.12)	3.14 (1.32)	4.44	602.37	< .001***
Usage	2.11 (1.03)	1.83 (1.22)	3.52	763.05	< .001***
Bnt-Rsk	3.39 (0.88)	3.34 (0.97)	0.81	530.75	0.420
Trust	3.47 (0.99)	3.45 (1.07)	0.35	562.88	0.725
Qulife	3.83 (0.97)	3.86 (0.96)	-0.56	1069	0.577
Qulgov	3.37 (1.24)	3.44 (1.32)	-0.87	1029	0.385

*** $p < .001$, ** $p < .01$, * $p < .05$

Welch's ANOVA was used due to heterogeneity of variance.
Post-hoc comparisons employed Games-Howell tests.

Conclusion

- Large proportion of the population **awares** AI
- Almost half of them have **used** AI and AI application
- More than half of the public is positive towards AI in terms of **trustworthy, benefits, improve quality of life and quality of governance**
- **Digital divide** exists among different age and educated groups regarding usage and perceptions of AI

Survey Results Overview (G1–G7)

	Frequency
G1 Awareness	1044 (89.8%)
G6 Qulife	885 (82.6%)
G5 Trust	709 (67.9%)
G7 Qulgov	669 (64.8%)
G4 Bnt-Rsk	595 (56.6%)
G2 Usage	526 (45%)

Thank you for listening