RESULTS OF ONLINE SURVEY

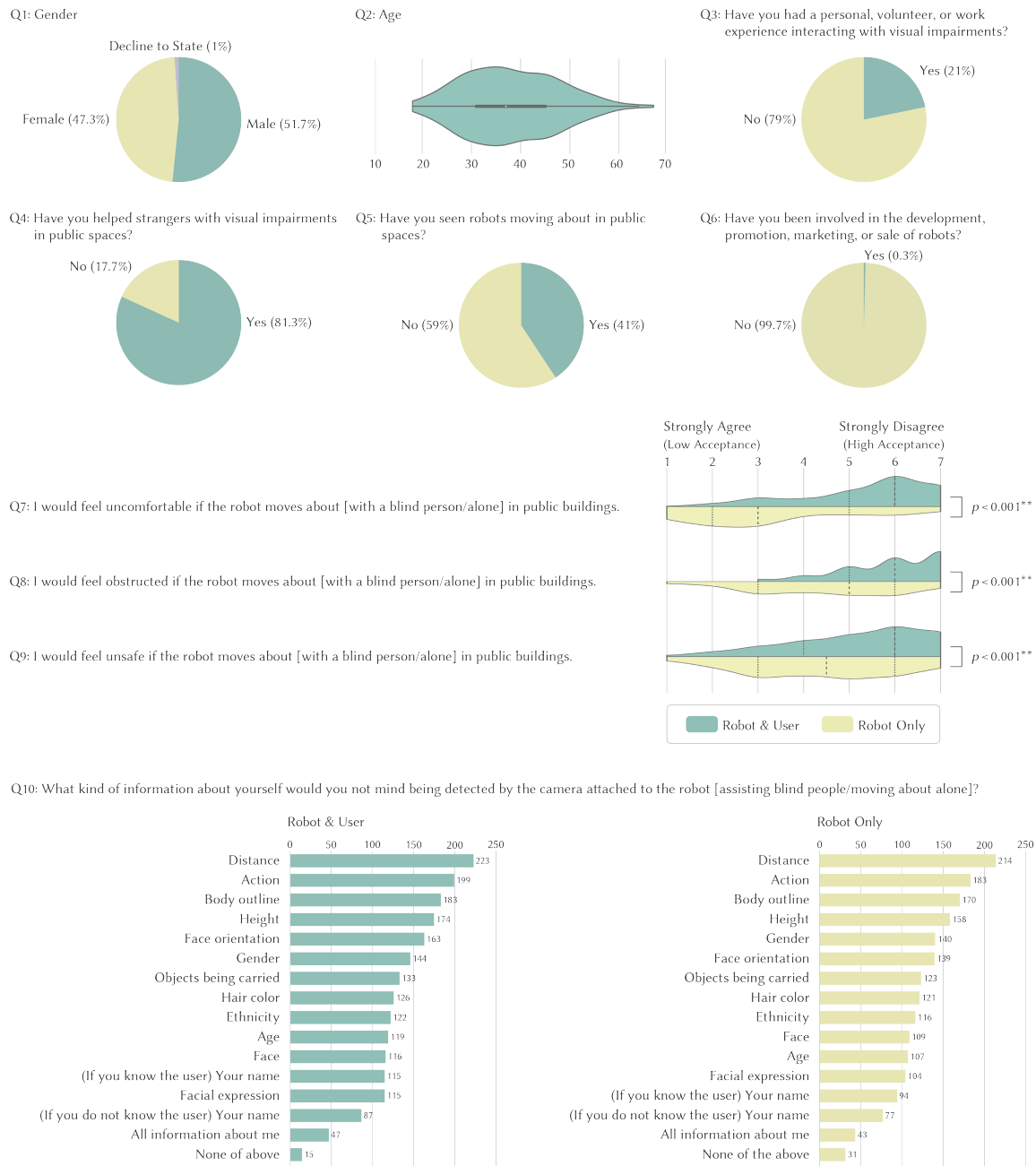**Q1: Gender**

Decline to State (1%)

Female (47.3%)

Male (51.7%)

Q2: Age

Q3: Have you had a personal, volunteer, or work experience interacting with visual impairments?

Yes (21%)

No (79%)

Q4: Have you helped strangers with visual impairments in public spaces?

No (17.7%)

Yes (81.3%)

Q5: Have you seen robots moving about in public spaces?

No (59%)

Yes (41%)

Q6: Have you been involved in the development, promotion, marketing, or sale of robots?

Yes (0.3%)

No (99.7%)

Strongly Agree (Low Acceptance) Strongly Disagree (High Acceptance)

1   2   3   4   5   6   7

Q7: I would feel uncomfortable if the robot moves about [with a blind person/alone] in public buildings. $p < 0.001$**

Q8: I would feel obstructed if the robot moves about [with a blind person/alone] in public buildings. $p < 0.001$**

Q9: I would feel unsafe if the robot moves about [with a blind person/alone] in public buildings. $p < 0.001$**

Robot & User   Robot Only

Q10: What kind of information about yourself would you not mind being detected by the camera attached to the robot [assisting blind people/moving about alone]?

Robot & User

Distance	223
Action	199
Body outline	183
Height	174
Face orientation	163
Gender	144
Objects being carried	133
Hair color	126
Ethnicity	122
Age	119
Face	116
(If you know the user) Your name	115
Facial expression	115
(If you do not know the user) Your name	87
All information about me	47
None of above	15

Robot Only

Distance	214
Action	183
Body outline	170
Height	158
Gender	140
Face orientation	139
Objects being carried	123
Hair color	121
Ethnicity	116
Face	109
Age	107
Facial expression	104
(If you know the user) Your name	94
(If you do not know the user) Your name	77
All information about me	43
None of the above	31

Fig. 1. Results of Q1–Q10. p: p-value of the Wilcoxon signed-rank test done on each question (** indicates the significance found at the levels of 0.01).
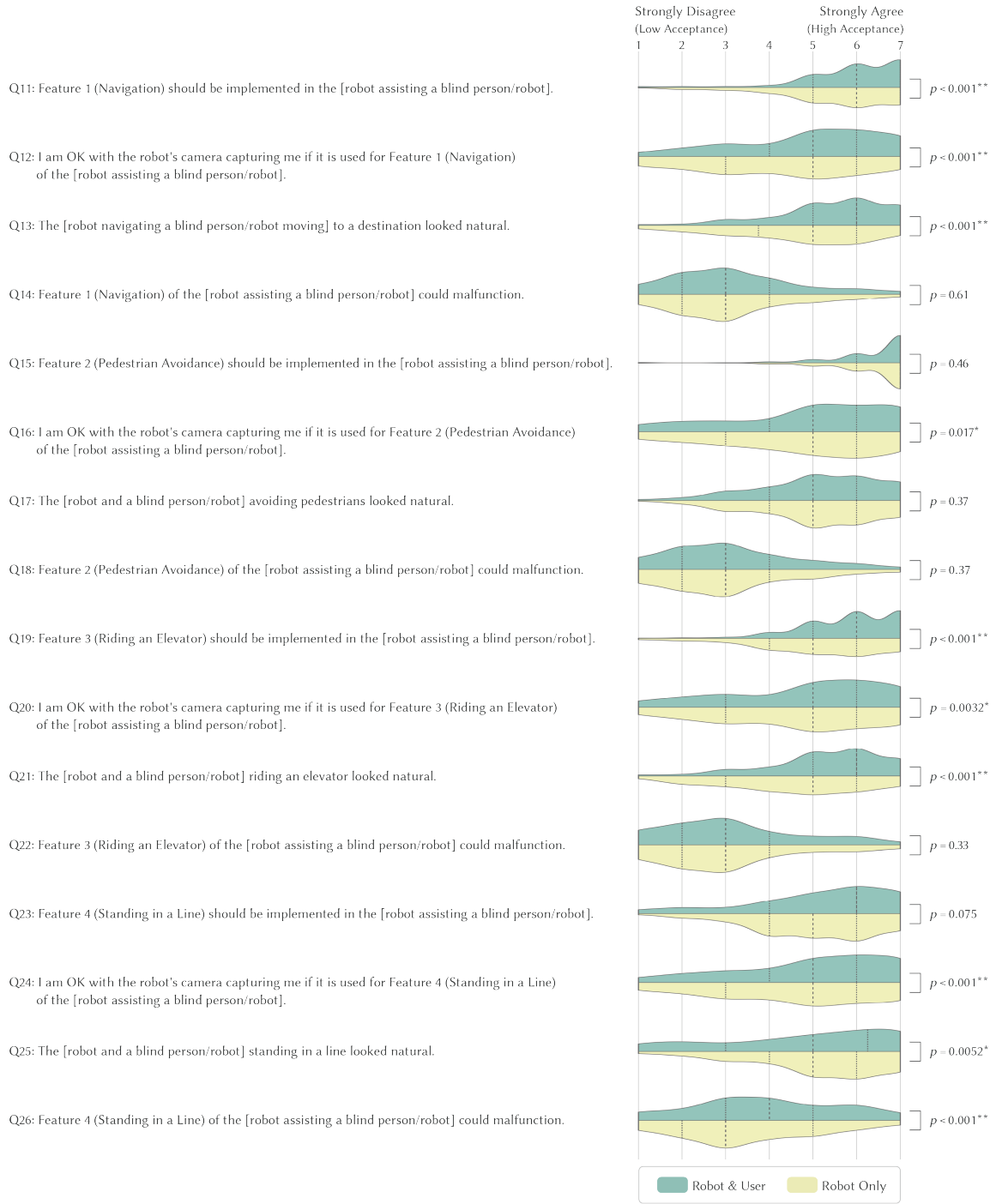
Q11: Feature 1 (Navigation) should be implemented in the [robot assisting a blind person/robot]. $p < 0.001^{**}$

Q12: I am OK with the robot's camera capturing me if it is used for Feature 1 (Navigation) of the [robot assisting a blind person/robot]. $p < 0.001^{**}$

Q13: The [robot navigating a blind person/robot moving] to a destination looked natural. $p < 0.001^{**}$

Q14: Feature 1 (Navigation) of the [robot assisting a blind person/robot] could malfunction. $p = 0.61$

Q15: Feature 2 (Pedestrian Avoidance) should be implemented in the [robot assisting a blind person/robot]. $p = 0.46$

Q16: I am OK with the robot's camera capturing me if it is used for Feature 2 (Pedestrian Avoidance) of the [robot assisting a blind person/robot]. $p = 0.017^{*}$

Q17: The [robot and a blind person/robot] avoiding pedestrians looked natural. $p = 0.37$

Q18: Feature 2 (Pedestrian Avoidance) of the [robot assisting a blind person/robot] could malfunction. $p = 0.37$

Q19: Feature 3 (Riding an Elevator) should be implemented in the [robot assisting a blind person/robot]. $p < 0.001^{**}$

Q20: I am OK with the robot's camera capturing me if it is used for Feature 3 (Riding an Elevator) of the [robot assisting a blind person/robot]. $p = 0.0032^{*}$

Q21: The [robot and a blind person/robot] riding an elevator looked natural. $p < 0.001^{**}$

Q22: Feature 3 (Riding an Elevator) of the [robot assisting a blind person/robot] could malfunction. $p = 0.33$

Q23: Feature 4 (Standing in a Line) should be implemented in the [robot assisting a blind person/robot]. $p = 0.075$

Q24: I am OK with the robot's camera capturing me if it is used for Feature 4 (Standing in a Line) of the [robot assisting a blind person/robot]. $p < 0.001^{**}$

Q25: The [robot and a blind person/robot] standing in a line looked natural. $p = 0.0052^{*}$

Q26: Feature 4 (Standing in a Line) of the [robot assisting a blind person/robot] could malfunction. $p < 0.001^{**}$

Fig. 2. Results of Q11–Q26. *p*: *p*-value of the Wilcoxon signed-rank test done on each question *p*: *p*-value of the Wilcoxon signed-rank test done on each question (* and ** indicate the significance found at the levels of 0.05 and 0.01, respectively).

Q27: I am OK with the [camera attached to the robot assisting a blind person/robot's camera] capturing me, if it is used for assisting blind people only and the captured data is used for one-time detection only and not saved.

Q28: I am OK with the [camera attached to the robot assisting a blind person/robot's camera] capturing me, if it is used for assisting blind people only and the captured data is saved.

Q29: I am OK with the [camera attached to the robot assisting a blind person/robot's camera] capturing me, if it is used for not only assisting blind people and the captured data is used for one-time detection only and not saved.

Q30: I am OK with the [camera attached to the robot assisting a blind person/robot's camera] capturing me, if it is used for not only assisting blind people and the captured data is saved.

Strongly Disagree (Low Acceptance) — Strongly Agree (High Acceptance)

$p = 0.74$
$p = 0.68$
$p = 0.0052^*$
$p = 0.0018^*$

Robot & User   Robot Only

Q31: How many people were standing in the line when video A was introducing Function 4?

Two persons (100%)

Q32: How many standing people did the robot avoid when video B was introducing Function 2?

Two persons (100%)

Q33: How many people were riding in the elevator when video B was introducing Function 3?

Zero (100%)

Fig. 3. Results of Q27–Q33. *p*: *p*-value of the Wilcoxon signed-rank test done on each question (* and ** indicate the significance found at the levels of 0.05 and 0.01, respectively).