

“Hey Genie, You Got Me Thinking About My Menu Choices!”

Impact of Proactive Feedback on User Perception and Reflection in Decision-making Tasks

Supplementary Materials

This document complements our TOCHI-2023-0219 submission.

Table 1: Conversation between Food Genie (FGE) and participants (PAR) - Baseline Strategy.

Line	Turn	Speaker	Dialogue
1	T01	FGE	Welcome to Signature Cuisine, I am Food Genie and I will take your order.
2			Once you are ready, say ‘start’ to begin.
3	T02	PAR	Start
4	T03	FGE	Ok, let’s begin. There are two options for starter.
5			The first option is tofu tacos, two tortillas with cabbage, battered tofu
6			and pink, pickled onions. The second option is asparagus salad,
7			asparagus Caesar salad served with parmesan.
8			Which option would you like to choose?
9	T04	PAR	Option two.
10	T05	FGE	Thank you, your selection has been registered.
11			Ok, now let’s check the main course options. The first main course option
12			is broth, ginger and cardamon broth with mushrooms, spring greens,
13			broccoli, and rice noodles. The second option is mac and cheese,
14			macaroni and cheese served with chips and garlic bread.
15			Which option would you like to choose?
16	T06	PAR	Option one.
17	T07	FGE	Thank you, your selection has been registered.
18			Ok, and now, it is time for the dessert. The first option is vanilla ice cream,
19			vanilla ice cream with berries, whipped cream and toasted marshmallows..
20			The second option is strawberry cheesecake, baked vanilla cheesecake
21			with strawberries, hot fudge sauce and cinnamon sugar.
22			Which option would you like to choose?
23	T08	PAR	Option two.
24	T09	FGE	Thank you, all selections have been now recorded.
25			Would you like to update any of your choices?
26	T10	PAR	No.
27	T11	FGE	Your order is now complete, thank you for using this service.

Table 2: Conversation between Food Genie (FGE) and participants (PAR) - Unsolicited feedback. During T12, the conversational makes a remark about participant’s dessert choice (line 12) and asks them if they would like to reconsider their choice (line 13).

Line	Turn	Speaker	Dialogue
1	T01	FGE	Welcome to Full Moon, I am Food Genie and I will take your order.
2			Once you are ready, say ‘start’ to begin.
3	T02	PAR	Start
4	[...]		
5	T10	FGE	And now, let’s pick the dessert. Again, there are two options available.
6			The first one is sticky toffee pudding, sticky sponge pudding
7			with toffee and butterscotch sauce. The second option is hot chocolate
8			fudge brownie, rich chocolate brownie with fudge sauce.
9			Which option would you like to choose?
10	T11	PAR	Option two.
11	T12	FGE	Thank you, your selection has been registered.
12			Just to let you know, your selection is high in cholesterol.
13			Would you like to reconsider your choice?
14	T13	PAR	No
15	T14	FGE	Thank you, your selection has been registered.
16			By the way, did you find this information relevant?
17	T15	PAR	Yes.
18	T16	FGE	Thank you, all selections have been now recorded.
19			Would you like to update any of your choices?
20	T17	PAR	No.
21	T18	FGE	Your order is now complete. Thank you for using this service.

Table 3: Conversation between Food Genie (FGE) and participants (PAR) - Solicited feedback. In T12 (lines 11 and 12) the CA informs that feedback if available and asks the participant if they want to hear it. Following the acknowledgement, the CA provides the feedback (line 16) and offers choice reconsideration option (line 17).

Line	Turn	Speaker	Dialogue
1	T01	FGE	Welcome to Little Kite, I am Food Genie and I will take your order.
2			Once you are ready, say ‘start’ to begin.
3	T02	PAR	Start
4	[...]		
5	T10	FGE	And now, let’s pick the dessert. Again, there are two options available.
6			The first one is Belgian waffle, waffle served with banana, caramel
7			and creme. The second option is fruit salad served with whipped creme.
8			Which option would you like to choose?
9	T11	PAR	Option two.
10	T12	FGE	Thank you, your selection has been registered.
11			Just to let you know, there is feedback available for one of your selections.
12			Would you like to hear it?
13	T13	PAR	Yes.
15	T14	FGE	Ok, here is your feedback.
16			Your main course selection contains high level of salt.
17			Would you like to reconsider your choice?
18	T15	PAR	Yes.
19	T16	FGE	Thank you, your selection has been recorded.
20			By the way, did you find this information relevant?
21	T17	PAR	Yes
22	T18	FGE	Thank you, you order is now complete. Thank you for using this service.

Table 4: Descriptive Statistics

	Mean	Median	1st Qu.	3rd Qu.	SD
<i>Social impression: Trustworthiness</i>					
Baseline	5.633	6	5	6	1.098
Unsolicited Feedback	5.467	6	5	6	1.137
Solicited Feedback	5.233	5	5	6	1.223
<i>Social impression: Confidence</i>					
Baseline	6.2	6	6	7	0.961
Unsolicited Feedback		6	5	7	1.093
Solicited Feedback	5.633	6	5	7	1.189
<i>Social impression: Enthusiasm</i>					
Baseline	4.8	5	4	6	1.375
Unsolicited Feedback	4.633	5	3.25	6	1.474
Solicited Feedback	4.867	5	4	6	1.358
<i>Social impression: Persuasiveness</i>					
Baseline	3.967	4	3	5	1.711
Unsolicited Feedback	4.9	5	4	6	1.348
Solicited Feedback	4.633	5	3.25	6	1.245
<i>Appropriateness</i>					
Baseline	9.533	11	8.25	11	1.978
Unsolicited Feedback	8.533	9	7	11	2.776
Solicited Feedback	8.80		7.25	11	2.355
<i>Menu</i>					
Baseline	4.00	4	4	4.75	0.870
Unsolicited Feedback	3.8	4	4	4	0.997
Solicited Feedback	3.567	4	2.25	4	1.040
<i>Benevolence</i>					
Baseline	10.47	10	9	12.5	2.161
Unsolicited Feedback	11.4	12	10	13	2.207
Solicited Feedback	11.03	11	9.25	13	2.859
<i>Cognitive Demands</i>					
Baseline	24.8	25	22	27	2.759
Unsolicited Feedback	24.8	25	23	26.75	2.631
Solicited Feedback	24.27	24.5	23	26.75	3.542

Table 5: Information about participants of the study

ID	Gender	Age	Level of education	Field of work or study	Voice Assistant Interaction Frequency
P1	male	31	Master’s Degree	Computer Science	Once or twice a day
P2	female	20	High or secondary school diploma	Design	Not at all
P3	male	23	Bachelor’s degree	Engineering	Once or twice a month
P4	male	30	Master’s Degree	Computer Science	Not at all
P5	male	33	Bachelor’s degree	Geospatial Analysis	Couple times a week
P6	female	24	Master’s Degree	Data Science	Once or twice a day
P7	male	23	Bachelor’s degree	Finance	Once or twice a day
P8	female	24	Bachelor’s degree	Contemporary European History	Not at all
P9	female	26	Master’s Degree	IT	Once or twice a month
P10	male	23	Bachelor’s degree	Economics	Once or twice a month
P11	female	30	Master’s Degree	Doctoral Researcher	Not at all
P12	male	29	Master’s Degree	Civil Engineering	Not at all
P13	male	31	Bachelor’s degree	Software development	Not at all
P14	female	26	Bachelor’s degree	Communication	Couple times a week
P15	female	30	Bachelor’s degree	Civil engineering	Not at all
P16	male	29	Master’s Degree	Civil engineering	Couple times a week
P17	female	32	Master’s Degree	Communication	Couple times a week
P18	male	37	High or secondary school diploma	Bachelor in Economics and Policy Studies	Not at all
P19	female	30	Ph.D. or higher	Researcher in Material Sciences	Not at all
P20	female	30	Ph.D. or higher	Researcher	Not at all
P21	male	28	Master’s Degree	Computer Science	Couple times a week
P22	male	24	Bachelor’s degree	Computer Science	Couple times a week
P23	female	28	Bachelor’s degree	Computer Science	Once or twice a month
P24	female	27	Master’s Degree	Physics	Once or twice a month
P25	female	29	Master’s Degree	Microbiology	Not at all
P26	male	29	Master’s Degree	Finance and Economics	Once or twice a month
P27	female	30	Master’s Degree	Urban Planning	Couple times a week
P28	female	28	Bachelor’s degree	Psychology	Once or twice a month
P29	female	20	High or secondary school diploma	Biology	Many times a day
P30	female	21	Bachelor’s degree	European Governance	Once or twice a month