

Artificial Social Agent Questionnaire (The Short Version)

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The *Artificial Social Agent Questionnaire* is A validated standardised measurement instrument for evaluating human interaction with an artificial social agent (ASA), resulted from multi-year efforts involving 100+ ASA researchers worldwide (<https://osf.io/6duf7/>). The long version of ASAQ is suitable for a comprehensive evaluation of human-ASA interaction, while the short version of ASAQ allows quick analysis and description of the interaction with the ASA. ASAQ is also supported with two charts for reporting ASA questionnaire results and a quick overview of agent profile. The ASAQ Chart can be used for comparing the ASAQ results of up-to 4 ASAs on the original -3 to 3 scale, while the ASAQ Percentile Chart can be used for contrasting the ASAQ results with the ASAQ Representative Set. This set contains dataset of representative ASAs and their unique participants' ASAQ ratings. See <http://asaq.ewi.tudelft.nl> for more information.

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Note:

- [R] refers to reverse-scoring questionnaire item,
- [The agent] can be replaced with the ASA's name, and
- [.. / ..], e.g. [I am / The user is], means to use either one.

Rating Scale:

7-point rating scale [-3 .. +3]

- -3 label: disagree
- 0 label: neither agree nor disagree
- 3 label: agree

Table 1: 19 constructs of the ASAQ.

No.	ID	Construct/Dimension	Definition
1		<i>Agent Believability</i>	<i>The extent to which a user believes that the artefact is a social agent</i>
1.1	HLA	Human-Like Appearance	The extent to which a user believes that the social agent appears like a human
1.2	HLB	Human-Like Behavior	The extent to which a user believes that the social agent behaves like a human
1.3	NA	Natural Appearance	The extent to which a user believes that the social agent's appearance could exist in or be derived from nature
1.4	NB	Natural Behavior	The extent to which a user believes that the social agent's behaviour could exist in or be derived from nature
1.5	AAS	Agent's Appearance Suitability	The extent to which the agent's appearance is suitable for its role
2	AU	Agent's Usability	The extent to which a user believes that using an agent will be free from effort (future process)
3	PF	Performance	The extent to which a task was well performed (past performance)

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No.	ID	Construct/Dimension	Definition
4	AL	Agent's Likeability	The agent's qualities that bring about a favourable regard
5	AS	Agent's Sociability	The agent's quality or state of being sociable
6		<i>Agent's Personality</i>	<i>The combination of characteristics or qualities that form an individual's distinctive character</i>
6.1	AAP	Agent's Personality Presence	To what extent the user believes that the agent has a personality
6.2		<i>Agent's Personality Type</i>	<i>The particular personality of the agent</i>
7	UAA	User Acceptance of the Agent	The willingness of the user to interact with the agent
8	AE	Agent's Enjoyability	The extent to which a user finds interacting with the agent enjoyable
9	UE	User's Engagement	The extent to which the user feels involved in the interaction with the agent
10	UT	User's Trust	The extent to which a user believes in the reliability, truthfulness, and ability of the agent (for future interactions)
11	UAA	User Agent Alliance	The extent to which a beneficial association is formed
12	AA	Agent's Attentiveness	The extent to which the user believes that the agent is aware of and has attention for the user
13	AC	Agent's Coherence	The extent to which the agent is perceived as being logical and consistent
14	AI	Agent's Intentionality	The extent to which the agent is perceived as being deliberate and has deliberations
15	AT	Attitude	A favourable or unfavourable evaluation toward the interaction with the agent
16	SP	Social Presence	The degree to which the user perceives the presence of a social entity in the interaction

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No.	ID	Construct/Dimension	Definition
17	IIS	Interaction Impact on Self-Image	How the user believes others perceive the user because of the interaction with the agent
18		<i>Emotional Experience</i>	<i>A self-contained phenomenal experience. They are subjective, evaluative, and independent of the sensations, thoughts, or images evoking them</i>
18.1	AEI	Agent's Emotional Intelligence Presence	To what extent the user believes that the agent has an emotional experience and can convey its emotions
18.2		<i>Agent's Emotional Intelligence Type</i>	<i>The particular emotional state of the agent</i>
18.3	UEP	User's Emotion Presence	To what extent the user believes that his/her emotional state is caused by the interaction or the agent
18.4		<i>User's Emotion Type</i>	<i>The particular emotional state of the user during or after the interaction with the agent</i>
19	UAI	User Agent Interplay	The extent to which the user and the agent have an effect on each other

Note: The numbering following <construct no>.<dimension no>. In *italics* are the constructs and dimensions that are not (or not directly) measured.

No.	ID	Item
1	HLA	[The agent] has the appearance of a human
2	HLB	[The agent] has a human-like manner
3	NA	[The agent] seems natural from its outward appearance
4	NB	[The agent] reacts like a living organism
5	AAS	[The agent]'s appearance is appropriate
6	AU	[The agent] is easy to use
7	PF	[The agent] does its task well
8	AL	I like [the agent]
9	AS	[The agent] can easily mix socially
10	APP	[The agent] has a distinctive character
11	UAA	[I / The user] will use [the agent] again in the future
12	AE	[R] [The agent] is boring
13	UE	The interaction captured [my / the user's] attention
14	UT	[I / The user] can rely on [the agent]
15	UAL	[The agent] and [I / the user] have a strategic alliance
16	AA	[The agent] is attentive
17	AC	[R] [The agent]'s behavior does not make sense
18	AI	[R] [The agent] has no clue of what it is doing
19	AT	[I see / The user sees] the interaction with [the agent] as something positive
20	SP	[The agent] is a social entity
21	IIS	Others would encourage [me / the user] to use [the agent]
22	AEI	[R] [The agent] is emotionless
23	UEP	The emotions [I feel / the user feels] during the interaction are caused by [the agent]
24	UAI	[The agent]'s and [my / the user's] emotions change to what [we / they] do to each other