Title of Research Study: Multimodal Anthropomorphism in Companion Chatbots: Examining Avatar Choice and Adaptive Language Style with Kagami

Investigator Team Contact Information: Dr. Cecilia Xi Wang

For questions about research appointments, the research study, research results, or other concerns, call the study team at:

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Key Information You Should Know Before Agreeing to Participate

The information below will help you learn about this research study and decide if you want to join. Make sure to read the whole consent form or have someone read it with you. If you have any questions or don't understand something, ask the researcher or study team before you sign the consent form.

What is this study about?

This study is about understanding how different design features in AI chatbots, like their visual appearance (avatar) and the way they talk (conversational style), affect how people feel about and interact with them. You will chat with a friendly AI chatbot named Kagami for about 10 minutes and then answer some survey questions about your experience.

More information about the study can be found on page 4.

Why am I being asked to take part in this research study?

We are asking you to take part in this research study because you are an adult (18 years or older), use the Prolific platform, are fluent in English, and are willing to interact with an AI chatbot online and complete surveys.

What are the risks I should know about?

The risks of participating in this study are considered minimal, similar to everyday online activities.

- The most common discomfort might be slight boredom during the chat or surveys, or mild frustration if the chatbot doesn't respond as you expect.
- Because the chatbot is designed to be friendly, some people might briefly feel an emotional connection to it. It's important to remember that Kagami is an AI program for research, not a real person or therapist.
- Because Kagami uses AI technology from a company called OpenAI to generate its responses
 and create avatars, the text of your chat and any prompts you provide for avatar creation will
 be sent to OpenAI. OpenAI has policies to protect this data (see "What happens to the
 information collected for the research?" on page 6 for more details), but as with any online
 service, there's a very small risk related to how third parties handle data.
- If you feel uncomfortable at any time, you can stop participating. There are no other foreseen risks to participating in this study.
- Additional information about these risks and other risks can be found on page 5.

Will this study benefit me or others?

There are no direct benefits to you from participating in this study.

Study Consent Version: 1.0

- We cannot promise that you or others will benefit from this study. However, this study may help researchers learn how to design AI chatbots that are more supportive, ethical, and enjoyable for people to use in the future.
- Additional information about other benefits can be found on page 6.

What is research?

- The goal of research is to learn new things to help people in the future.
- Researchers follow the same plan with many participants and usually don't change that plan for one research participant.
- By volunteering for a research study, you might or might not be helped personally.

Voluntary Participation and Right to Stop at Any Time

- You get to decide whether you participate or not.
- You can decide not to participate.
- You can say yes at first and then change your mind at any time.
- If you decide not to participate or to leave the study, it won't change your relationship with the University of Minnesota or the researchers in any way.

How long will the research last?

We expect that your participation in this research study will take a total of about 15-20 minutes to complete in one session. This includes about 2-3 minutes for initial surveys, about 10 minutes for the chat with the AI, and about 3-5 minutes for final surveys.

For more information about these activities, please see page 4.

What will I need to do to participate?

You will be asked to:

- 1. Complete a short online survey with some general questions about you and your experience with technology.
- 2. Have a text-based chat with an AI chatbot named Kagami for about 10 minutes. You can talk about everyday topics.
- 3. Complete another short online survey about your experience chatting with Kagami.

As part of the research, we may ask questions about how you feel mentally and emotionally. We are providing a list of resources to you in case you would like to talk to someone and get help. If you are thinking about hurting yourself or someone else, please tell someone who can help immediately. Call the toll-free 24-hour National Suicide Prevention Lifeline at 1-800-273-TALK (1-800-273-8255) to talk to a counselor near you.

For more information about these activities, please see page 4.

Study Consent Version: 1.0

What happens if I do not want to be in this research?

- There are no known alternatives, other than deciding not to participate in this research study.
- You do not have to participate in this research.

Will it cost me anything to participate in this study?

• It will not cost you any money to participate in this study.

More Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?

We expect about 162 people will participate in this research study. All participants will be recruited online from the United States through the Prolific platform.

What happens if I say "Yes, I want to be in this research"?

If you agree to participate, the following will happen:

Timeline and Activities: You will immediately proceed to an online pre-survey (about 2-3 minutes). Then, depending on the group you are randomly assigned to, you might be asked to choose a visual look (avatar) for the chatbot or help create one with a text description, or you might skip this step (about 1-2 minutes). After that, you will have a 10-minute text chat with the AI chatbot, Kagami. Finally, you will complete an online post-survey about your experience (about 3-5 minutes). The entire process is done in one session.

Interaction: You will interact with the online surveys (Qualtrics) and the Kagami chatbot website.

Location: You will do this on your own computer or mobile device from any location with internet access.

Experimental Procedures: The way the chatbot looks (or if it has a look) and the way it adjusts its language style are the parts of the study we are experimenting with to see how they affect your experience. Your assignment to one of these conditions is random.

Data Collection: We will collect your survey answers and the text of your chat with Kagami. No audio or video recording will be done.

Future Contact: We will not contact you for future research unless you specifically request a summary

Study Consent Version: 1.0

of the study results.

What are my responsibilities if I take part in this research?

If you take part in this research, your main responsibilities are to answer the survey questions honestly and to engage in the 10-minute chat session with the AI chatbot as you normally would in a casual conversation. There are no physical items to return or other responsibilities after you complete the online session.

What happens if I say "Yes", but I change my mind later?

You can leave the research study at any time and no one will be upset by your decision. Choosing not to be in this study or to stop being in this study will not result in any penalty to you or loss of benefit to which you are entitled. This means that your choice not to be in this study will not negatively affect your standing with Prolific, the University of Minnesota, or the researchers.

If you decide to leave the research study while you are doing it, you can simply close your web browser. If you decide to leave after completing some or all of the study and want your data removed, please contact the Principal Investigator (contact information at the end of this form). We will remove your data if it has not yet been de-identified and combined with other participants' data.

Data collected up to the point you withdraw may be kept and used if it has already been deidentified, but no new data will be collected from you.

Can I be removed from the research?

Yes, the person in charge of the research study (the Principal Investigator) may remove you from the research study without your approval if, for example, there is evidence that you are not participating seriously (like providing random answers or using automated responses during the chat) or if significant technical problems prevent you from completing the study properly. This would be rare.

We will tell you about any important new information from the study that may affect your health, welfare, or your choice to continue in the research, though this is not expected for this type of study.

What are the risks of being in this study? Is there any way being in this study could be bad for me? (More information about risks)

Psychological risks: You might feel slight boredom during the 10-minute chat or while completing surveys. Because the chatbot is designed to be friendly, it's possible to briefly feel an emotional connection, or perhaps mild frustration if its responses aren't what you expect. It's important to remember Kagami is an AI for research. If you discuss topics related to your mood or well-being in the initial survey, reflecting on these might briefly bring those feelings to mind. We provide resources if

Page 5 of 9

Study Consent Version: 1.0

you feel you need support.

Privacy and confidentiality risks: There is always a small risk that with any online activity, your data could be seen by someone who shouldn't see it if there was a data breach. We take many steps to protect your information (described later under "What happens to the information collected for the research?") by using secure systems and removing identifiers like your Prolific ID from the research data.

There are no foreseen physical, legal, social, economic, or group/community risks from participating in this study.

Will being in this study help me in any way? (More information about potential benefits)

We do not expect you to get any direct personal benefit from taking part in this research. As mentioned earlier, your participation may help researchers learn more about how to design better AI chatbots in the future. This could lead to AI systems that are more supportive, ethical, and user-friendly for everyone.

Monetary payment for your time is described in the "Will I be compensated for my participation?" section.

What happens to the information collected for the research?

We will make every effort to protect the privacy of the information you provide.

Your responses to surveys and your chat conversation with Kagami will be stored securely on University of Minnesota systems.

To enable Kagami to chat with you and generate avatars, the text of your conversation and any prompts you type for avatar creation are sent to OpenAI, the company that provides the AI technology (models named GPT-4.1-nano and GPT-Image-1). According to OpenAI's policies for these services:

- Your data sent to them will **not** be used to train their general AI models.
- They may keep a copy of the data for up to 30 days for safety and abuse monitoring.
- During this 30-day period, neither you nor the research team can delete the data from OpenAI's systems, though we will delete it from our own research records if you request withdrawal and it's still identifiable by us.

We only send the necessary chat text or avatar prompts to OpenAI; no other personal information from your surveys (like your demographics or Prolific ID) is sent to them by us.

Your Prolific ID will only be used for payment and will be removed from the research data. A random participant code will be used to link your survey responses and chat data. We will not collect your name, email address, or other direct personal identifiers as part of the research data.

The research team (the Student Investigator and Faculty Advisor) will have access to the data. Authorized representatives of the University of Minnesota Institutional Review Board (IRB), which is

Page **6** of **9**

Study Consent Version: 1.0

the committee that reviews and approves research to protect participants' rights, may also review the research records to ensure the study is conducted properly.

We plan to publish the results of this research in scholarly articles or presentations (like a Master's thesis). When we do this, we will only present information in a grouped (aggregated) and deidentified way. No information that could identify you personally will be published.

While we take many steps to protect your privacy, we cannot promise complete confidentiality, as there is always a small risk with online data.

We will not be able to link your responses to you, so we will not be able to provide you with personal feedback or referrals based on your responses to questions. If you are concerned about your mood, please refer to the attached resource referral information sheet. Please tell someone who can help right away. You can also call the toll-free 24-hour National Suicide Prevention Lifeline at 1-800-273-TALK (1-800-273-8255) to talk to a counselor near you.

Additional sharing of your information for mandatory reporting

If we learn about any of the following, we may be required or permitted by law or policy to report this information to authorities:

Current or within the preceding three years child or vulnerable adult abuse or neglect

What will be done with my data and specimens (if applicable) when this study is over?

Your information (survey responses and chat conversations) will be de-identified by removing your Prolific ID and any other potential identifiers. This de-identified information may be used by the research team for future research studies related to how people interact with AI. It might also be shared with other researchers for future research studies without asking for your additional informed consent. You will not receive any results or financial benefit from future research done with your de-identified data.

We have no plans to use your information to create commercial products or services.

We will use and may share your de-identified information (survey responses and chat conversations with identifiers removed) for future research. In addition to using and storing this de-identified information for future research within the University of Minnesota, it may also be shared with other researchers or research institutions outside of the University of Minnesota, or placed in public research data repositories. This could include for-profit companies if they access public repositories.

We will not ask for your specific consent again before using or sharing your de-identified information for these future research purposes. Because identifiers will have been removed, nobody who works with this information for future research will know it came from you. Therefore, you will not receive any results or financial benefit from future research done with your de-identified information.

Will anyone besides the study team be at my consent meeting?

Page **7** of **9**

Study Consent Version: 1.0

Your consent process will take place online when you review this form and decide whether to participate. It is a private process between you and the online system. Representatives of the University of Minnesota Institutional Review Board (IRB) or other University compliance units may review study records, including how consent is obtained, to ensure the research is conducted ethically and your rights are protected, but they will not be present during your individual online consent process.

Whom do I contact if I have questions, concerns or feedback about my experience?

If you have questions later regarding the study or your participation, you are encouraged to contact the research team. Please see the "Investigator Team Contact Information" section at the beginning of this form for contact details for the Principal Investigator and Student Investigator.

To reach someone outside of the research team: This research has been reviewed and approved by an IRB which is part of the Human Research Protections Program (HRPP). If there is an issue you would like to discuss with someone who is *not* on the research team you are encouraged to call the HRPP Research Participants' Advocate Line at <u>612-625-1650</u> (Toll Free: 1-888-224-8636) or go to <u>z.umn.edu/participants</u>. For example:

- Your questions, concerns, or complaints are not being answered by the research team.
- You are having difficulty reaching the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to provide feedback about this research to someone who is not on the study team.

Will I have a chance to provide feedback after the study is over?

The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous.

If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the "Investigator Contact Information" of this form for study team contact information and "Whom do I contact if I have questions, concerns or feedback about my experience?" of this form for HRPP contact information.

Will I be compensated for my participation?

If you agree to take part in this research study and complete all parts, we will pay you approximately \$3.50 for your time and effort. This amount is based on an estimated 15-20 minutes of participation at an approximate hourly rate of \$10.50. Payment will be made through your Prolific account after

Study Consent Version: 1.0

you complete the study.

Payment you receive as compensation for participation in research is considered taxable income. If payment to an individual from the University of Minnesota equals or exceeds \$600 in any one calendar year, the University of Minnesota is required to report this information to the Internal Revenue Service (IRS). Research payments to study participants that equal or exceed \$600 during any calendar year will result in a FORM 1099 (Miscellaneous Income) being issued to you and a copy sent to the IRS.

How will my information be used in publications and presentations?

We may publish the results of this research in academic reports (like a Master's thesis), scientific journals, or present them at conferences. When we share the results, all information will be presented in a grouped (aggregated) and de-identified way. No information that could make it easy to identify you (like your Prolific ID or specific chat details that are unique to you without context) will be part of any publication or presentation.