Introduction
"Thank you for joining today. My name is _____, and I'll be leading this session, which is for a Capstone Human-Computer Interaction Masters class at DePaul. We are conducting a usability test to evaluate the AR Digital Creation Platform prototype that we are developing. My pronouns are (say pronoun). To make sure I am addressing you properly, would you mind sharing what pronoun or pronouns you would like me to use to address you during our time together?

Our Capstone project is focused on making it simple and easy for individuals such as yourself to develop AR content. Your feedback is vital to us, and we appreciate your willingness to help with this project. Please know that there are no right or wrong answers, and we are testing our prototype, not you.

We will be showing you our lo-fi prototype that has many elements which are not interactive. We want to understand your expectations as you interact with this prototype.
Whatever you share will help us identify issues with our product and discover areas of opportunity to make it more useful and easier to use. This session should take about 30 – 40 minutes. Do you have any questions before we begin?"

Definitions – to make sure we are using the same terminology
Augmented reality: Augmented reality is an interactive experience of a real-world environment where the objects in the real world are enhanced by computer-generated perceptual information.
Creation Tools: Tools that assist people in creating digital and non-digital content such as documents, art, photography, music, games, tools etc.

Background Interview
To get started, I would like to get to know you a bit:
1. Have you ever heard about Augmented reality?
a. On a scale of 1 to 5, how aware are you of Augmented Reality (AR) experiences? (1 is Not at all Aware, and 5 is Extremely Aware)
1. Have you created AR content?
• On a scale of 1 to 5, what is your level of familiarity with creating AR experiences? (1 is Not at all familiar, and 5 is extremely familiar)
   • If say 1 or 2, show the iGreet video:
   https://www.youtube.com/watch?v=p7mUzgEX_Y8
1. Do you know what content creation tools mean?

Usability Tasks
Now we will jump into the usability test, and I will provide you with a link to the prototype of the chat. Please, open that link and then begin sharing your screen. I will provide a brief scenario and ask you to complete a series of tasks. When performing tasks, remember to THINK OUT LOUD, describing your thinking process. For example, talk about:
1) What you are planning to do next
2) Reasons behind your selections
1) The challenges you face (if any)
2) If anything is confusing or unexpected

You may ask questions during testing, but please know that I may not answer them if I feel like it will affect how you would interact with the prototype if I were not here. Are you ready to begin?"

<u>Scenario</u>:
Imagine your name is Morgan, and your good friend from school is visiting you and your family after many years in Canada. You wanted to share a few fond memories of your time to make them feel welcome. Your colleague at work mentioned that there is AR software that could help create a fun greeting card experience to share those memories.

- Can you walk me through how you would successfully create an account and land on the homepage? Remember to speak aloud, explaining your thoughts and the reasons behind your selection. Once you have completed this, please let me know.
    - On a scale of 1 to 5, one being not at all confident and five being extremely confident, how confident are you that you completed the task?
        - Not at all confident
        - Slightly confident
        - Somewhat confident
        - Quite confident
        - Extremely confident
    - What additional information do you expect to see on this screen when creating a new account?
- Could you please show me how you would create a new project and select the greeting card template? Remember to speak aloud, explaining your thoughts and the reasons behind your selection. Once you have completed this, please let us know.
    - On a scale of 1 to 5, one being not at all confident and five being extremely confident, how confident are you that you completed the task?
        - Not at all confident
        - Slightly confident
        - Somewhat confident
        - Quite confident
        - Extremely confident
    - What additional information do you expect to see on this screen when customizing your greeting card?
- Now, please take some time to review the details of this page. Once you are ready, please describe what you are seeing.
- Going back to our scenario, please show me how you would interact to edit the card, add the maple leaf icon, insert some animation to the maple leaf, and add some images from your time together. Remember to speak aloud, explaining your thoughts and reasons behind your selection. Once you have completed this, please let us know.
    - On a scale of 1 to 5, one being not at all confident and five being extremely confident, how confident are you that your response is accurate?
        - Not at all confident
        - Slightly confident
        - Somewhat confident
        - Quite confident
        - Extremely confident
    - What additional information do you expect to see on these screens when completing the task?

- Please take some time to review the details of this page. Please describe what you are seeing (21 & 22 – Preview Mode in the prototype).
  - o What are your expectations from this page?
  - o What do you expect to happen next?

Wrap-Up Questions
- Now that you understand our project, is there anything you think we should add to our experience or something we overlooked?
- If you have note-takers, you can ask if they have any further questions.
- How likely are you to use a product compared to an e-card or a physical greeting? Please explain your answer.
- What are your thoughts about having a verbal/voice integration feature in our AR platform?
- (If asked, what does it mean, say for example, in the scenario we walkthrough, adding a personalized verbal message in addition to text, to the greeting card).

Demographics Questions
- What is your occupation?
- What age range do you fall into? (18-24, 25-34, 35-44, 45-54, 55+)
- What is your ethnicity?

This concludes our usability test session. Thank you for talking with me today. Have a good day!

9.6.3 Lo-fi interview Consent form

<u>**ADULT CONSENT TO PARTICIPATE IN RESEARCH**</u>

Remote Moderated Usability Test for Augmented Reality (AR) Creation Platform

Principal Investigator: Rija Aamir, Cindy Aronson, Rahul Kapoor, Beeta Sabbithi

Institution: DePaul University, Chicago, Illinois, USA

Department, School, College: College of Computing and Digital Media (CDM)

Faculty Advisor: Hank Streeter, CDM, DePaul University

<u>***What is the purpose of this research?***</u>

We are asking you to be in a research study because we are trying to learn how individuals such as yourself think about Augmented Reality (AR) and further understand what kind of creation tools (definition below) are being used when editing or creating content. This study is being conducted by Rija Aamir, Cindy Aronson, Rahul Kapoor, Beeta Sabbithi, graduate students at DePaul University as a requirement to obtain his/her master's/doctoral degree. This research is being supervised by his/her faculty advisor, Hank Streeter.

We hope to include about 5 people in the research.

[Content Creation Tool: Tools that assist people in creating digital and non-digital content such as documents, art, photography, music, games, tools etc.]

Why are you being asked to be in the research?

You are invited to participate in this study because you are 18 or older. This study is not approved for the enrollment of people under the age of 18.

What is involved in being in the research study?

If you agree to be in this study, being in the research involves being in the research involves a completing a series of short tasks on the designed mid-fi prototypes. This study will also include some warm-up questions at the beginning and follow-up questions at the end.

The session will be recorded.

Are there any risks involved in participating in this study?

Being in this study does not involve any risks other than what you would encounter in daily life. You may feel uncomfortable or embarrassed about answering certain questions. You do not have to answer any questions you do not want to.

Are there any benefits to participating in this study?

You will not personally benefit from being in this study.

How much time will this take?

This study will take about 30-45 minutes of your time.

Can you decide not to participate?

Your participation is voluntary, which means you can choose not to participate. There will be no negative consequences, penalties, or loss of benefits if you decide not to participate or change your mind later and withdraw from the research after you begin participating.

Who will see my study information and how will the confidentiality of the information collected for the research be protected?

The research records will be kept and stored securely. Your information will be combined with information from other people taking part in the study. When we write about the study or publish a paper to share the research with other researchers, we will write about the combined information we have gathered. We will not include your name or any information that will directly identify you. Some people might review or copy our records that may identify you in order to make sure we are following the required rules, laws, and regulations. For example, the DePaul University Institutional Review Board (IRB). If they look at our records, they will keep your information confidential. The audio recordings will be kept until accurate written notes have been made, then they will be destroyed.

Who should be contacted for more information about the research?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study or you want to get additional information or provide input about this research, you can contact the researcher.
- Rija Aamir – raamir@depaul.edu
- Cindy Aronson - caronson@depaul.edu
- Rahul Kapoor - rkapoor4@depaul.edu
- Beeta Sabbithi – bsabbith@depaul.edu

You can also contact our faculty advisor:
- Hank Streeter – hstreete@depaul.edu

This research has been reviewed and approved by the DePaul Institutional Review Board (IRB). If you have questions about your rights as a research subject, you may contact Jessica Bloom in the Office of Research Services at 312-362-6168 or by email at jbloom8@depaul.edu.

You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

You will be given a copy [can print a copy] of this information to keep for your records.

Statement of Consent from the Subject:

Please read this informed consent information thoroughly. If you have any questions or concerns, please let the researchers or faculty advisor know so that your questions can be answered. We will request your verbal consent before we begin this study. By giving your verbal consent, you indicate that you agree to

1. Participate in the research study
2. Be recorded during the study

9.6.4 Lo-Fi Usability Test Log

9.6.5 Lo-Fi Usability Test Data
Data for lo-fi usability test