Utrecht University

Intro and Demographics

Thank you for your interest in our survey. We are exploring concepts related to **integrating physical activity into work and school through walking meetings and lectures**.

During the survey you will be presented with **2 short scenarios**. Please read the scenarios fully before answering the associated questions. The aim is for you to really think about what it would be like to participate in a situation similar to what is being presented. The overall survey should take around 10 minutes.

All data collected from this survey will be anonymous. If you have any questions about this, or related work, please contact Luke Haliburton at luke.haliburton@ifi.lmu.de

Please note that by confirming and completing the survey you consent to your data being used anonymously in our research. You may leave any time without completing the survey in order to withdraw your data for any reason.

◯ Click to confirm that you have read the introduction and agree to your data being anonymously collected.

Demographics

Age

[   ]

Gender

◯ Male
◯ Female
◯ Non-Binary
◯ Prefer not to say
◯ [   ] Write your gender (a text box will appear)

Current country of residence

[   ]

Please rate your experience with walking meetings.

○ I have never participated in a walking meeting

○ I have participated in several walking meetings, but they are not a regular part of my routine

○ Walking meetings are a regular part of my routine

Meeting Block

Please Read the Following Scenario

Setting

Kevin is an energetic young engineer who has been working at Kalon, a medium sized technology company for only a few months. His supervisor, Joelle, has scheduled a walking meeting with Kevin to discuss the progress of one of their current projects using the company's booking system. They use the company's intelligent meeting assistant system, which records and transcribes meeting notes to create a personalized meeting summary based on input from the participants during the meeting. Participants use gestures to indicate when something important was said or if there is something they want deleted from the record. The system also monitors engagement to find and highlight moments that seem important.

Narrative

Kevin is a young engineer who recently started working at Kalon. In his previous jobs he had cubicles and offices with no windows, but his new company seems to place a firm emphasis on nature and wellbeing. Every office has a view and large plants can be seen in every corner of the building.

Glancing at his watch, he notices that his meeting with his boss starts in just five minutes. He takes a deep breath and stands up to start heading towards the front entrance of the building. This is the first design review meeting for Kevin at

the new firm, and he can feel his stomach fluttering as he makes his way down to the lobby; He wants to make a good impression on his new boss.

During engineering school he had read countless papers written by his supervisor, Joelle. He was still having trouble wrapping his head around the fact that he now worked as part of her team. He ran out of time to be nervous, however, as she was waiting with a friendly smile as he reached the front door.

They made casual small talk as they walked towards the large wrought iron gate that marked the entrance to the park across the street.

"This would be your first time using the company's intelligent meeting assistant system for an actual meeting, right?", Joelle asked.

"Yes, that's right. It seemed simple enough in orientation", Kevin replied.

"You'll pick it up in no time", Joelle said as she pressed a button to start her recording system. "Just start the system and then indicate when you want to have something emphasized or deleted from your notes. It will also monitor your behavior to find moments you were particularly engaged, and it will highlight those in your note summary as well."

Kevin pressed the button to start his recording and they began their meeting. He was impressed by the technology behind the system, he barely noticed the tiny microphone and camera attached to his lapel. He will have to get used to being able to have detailed meetings without manually taking any notes.

As the meeting continued through the park, Kevin made several emphasis gestures to his system. Emphasis gestures are quick interactions that let the system know that what was just said was important. Later in the meeting summary the emphasized moments will be featured prominently. Kevin noticed Joelle gesturing a few times as well, but mostly she was intently focused on the conversation.

Several times, especially early in the conversation, Kevin misspoke and caught himself saying completely incorrect things. He swiped a deletion gesture at the system and felt a slight bit of relief knowing that his mistakes would not be included in the record. Deletion gestures let the system know that you want the previous segment of conversation to be removed from the recording.
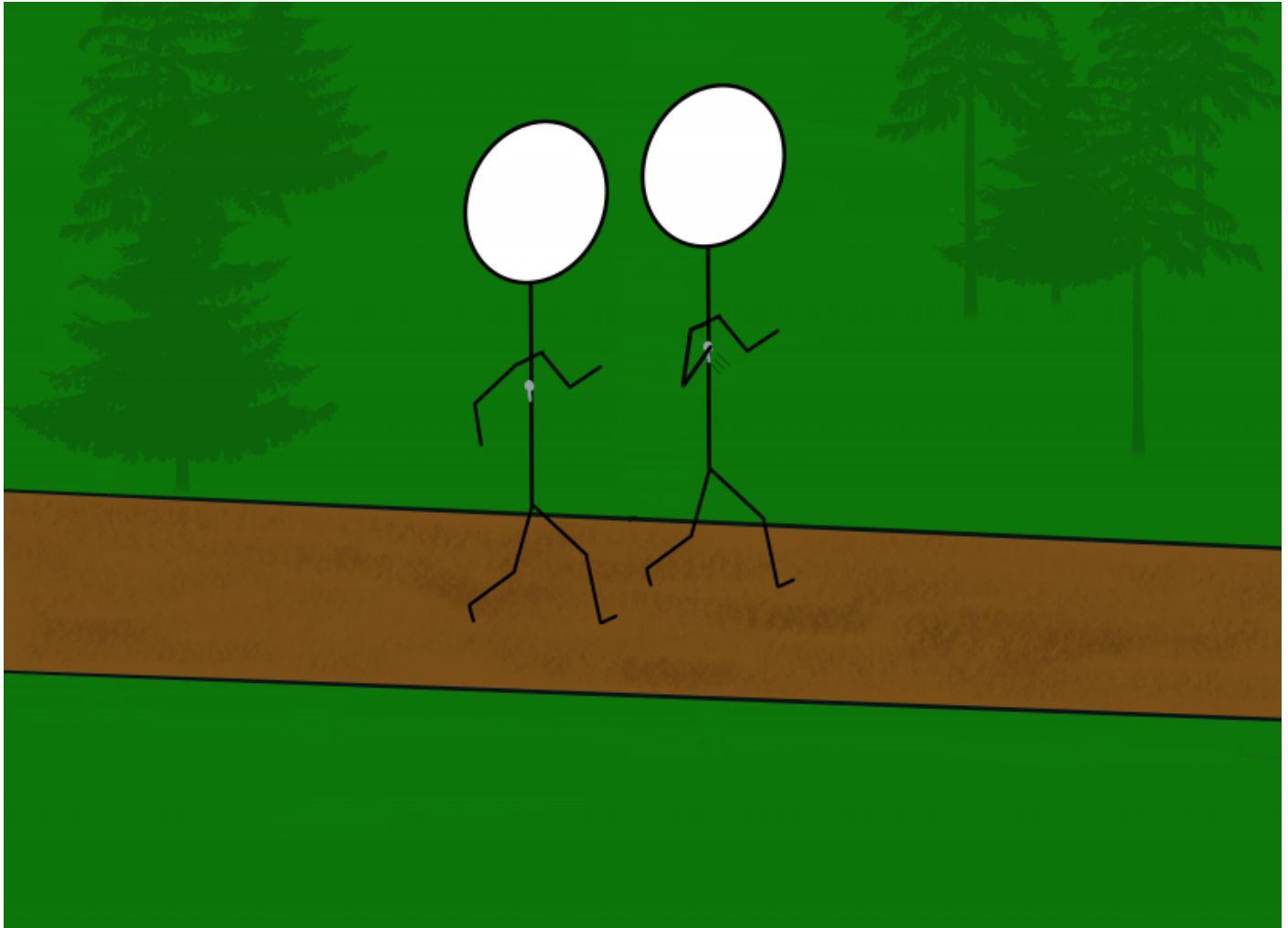
By the end of the conversation Kevin was feeling much more relaxed. Joelle was impressed by the progress on the project so far and had several critical suggestions that would help push it to the next level. Kevin often found himself caught up in answering her difficult questions, so he would forget to make emphasis gestures. Later, while reading the meeting notes, Kevin would truly appreciate the power of the meeting assistant system.

As they completed their lap of the park and approached the large wrought iron gate, Kevin felt much more confident in his ability to contribute to the company. Having walked side-by-side with Joelle while working through challenges in the project, he felt that they had accomplished something together.

Afterwards, Kevin returned to his desk to find a personalized meeting summary on his computer. The intelligent meeting assistant had generated customized notes for him based on his gestures and his behaviour. There were several important points that Kevin remembered which he hadn't made gestures for, and he was thankful that the system had also monitored his engagement to influence the summary.

At the end of the meeting summary was a list of action items, and as he switched to his calendar he noticed two new entries were scheduled based on things he had discussed with Joelle in the meeting.

I guess I should get started, he thought to himself as he started working on the first item in the list.

Click here to confirm that you have read the fictional scenario

○ I have read the scenario above

Imagine yourself participating in a meeting like the one in the scenario. Please indicate the extent to which you would expect to experience the following feelings:

	1 - Very slightly or not at all	2 - A little	3 - Moderately	4 - Quite a bit	5 - Extremely

	1 - Very slightly or not at all	2 - A little	3 - Moderately	4 - Quite a bit	5 - Extremely
Active	◯	◯	◯	◯	◯
Afraid	◯	◯	◯	◯	◯
Alert	◯	◯	◯	◯	◯
Ashamed	◯	◯	◯	◯	◯
Attentive	◯	◯	◯	◯	◯
Hostile	◯	◯	◯	◯	◯
Determined	◯	◯	◯	◯	◯
Nervous	◯	◯	◯	◯	◯
Inspired	◯	◯	◯	◯	◯
Upset	◯	◯	◯	◯	◯

Please list three aspects you find most *positive* about this scenario

☐ [_____] 1

☐ [_____] 2

☐ [_____] 3

Please list three aspects you find most *negative* about this scenario

☐ [_____] 1

☐ ⬜2

☐ ⬜3

Would you use a system like this?

○ Yes
○ No

Why or why not? (Please write at least 1 complete sentence)

How often would you use a system like this?

○ Daily
○ Weekly
○ Monthly
○ Rarely if ever

What kind of meeting would you use this system for?

☐ Brainstorming/ideation

- ☐ Planning
- ☐ Detailed review of work
- ☐ Regular progress update
- ☐ [   ]Other

With whom would you want to participate in a meeting like this

- ☐ Supervisor
- ☐ Colleague
- ☐ Someone I supervise
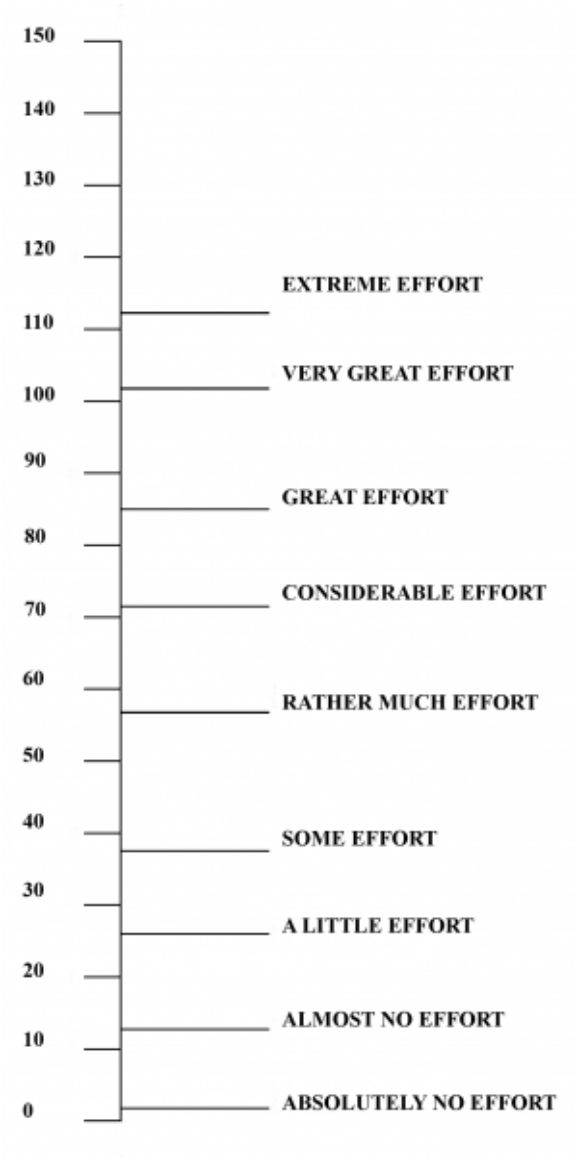- ☐ Colleagues I am close with
- ☐ No one

What would you add or change about the scenario to make it better?

What additional things would you bring with you to this meeting? (Please explain what you would use it for. If you answer "nothing", please explain why)

Please rate your perception of the effectiveness of the technology system in:

	1 - Extremely ineffective	2	3 - Neutral	4	5 - Extremely effective
Achieving your own goals	○	○	○	○	○
Achieving your meeting partner's goals	○	○	○	○	○
Achieving your company's goals	○	○	○	○	○

Please rate the level of mental effort you associate with this scenario based on the scale below:

```
150 —
140 —
130 —
120 —
                        EXTREME EFFORT
110 —
                        VERY GREAT EFFORT
100 —
 90 —
                        GREAT EFFORT
 80 —
                        CONSIDERABLE EFFORT
 70 —
 60 —
                        RATHER MUCH EFFORT
 50 —
 40 —
                        SOME EFFORT
 30 —
                        A LITTLE EFFORT
 20 —
                        ALMOST NO EFFORT
 10 —
  0 —                   ABSOLUTELY NO EFFORT
```

What other situations would you use this technology for?

Remote Meeting

Please Read the Following Scenario

Setting

Stacy is a bright young developer working for a large multinational software company. She is currently working on a project in Tokyo in cooperation with a local client. She is scheduled to have a weekly update meeting with her colleague, Amir, who is also working on the project but he is located at their company headquarters in London. Stacy goes to a park near her office in Tokyo, while Amir walks to a park down the street from his office in London. Once they are both in the parks, they begin the meeting using Augmented Reality (AR) glasses. An accurate 3D representation of Amir appears to Stacy in her AR vision, and a model of her also appears for him. The models are mapped to the local environment to appear as though they are actually present and walking beside one another. The system automatically records and transcribes the conversation, with gesture controlled options to highlight or delete segments of the notes.

Narrative

Stacy looked around at the birds flitting from tree to tree as she slowly made her way through the park to the big fountain where she liked to start her meetings. In her 4 months working at the Tokyo office this fountain had become a favorite location for her. There were many paths sprawling through the park so it did not matter which direction she walked. She preferred to be able to wander as she talked rather than trying to remember a certain path while deep in important conversations. It was nearly 5 pm in Tokyo, and this meeting was the last thing on her schedule for the day.

Meanwhile, it was nearly 9 am in London, so Amir was preparing for his first meeting of the day. There was a long park between his home and the company headquarters, so he could perfectly fit a half hour meeting into his morning walk. If

the meeting went long, he would take a lap around the pond near the end of the journey. Just as Amir got to the edge of

the park he tapped his Augmented Reality (AR) glasses to indicate that he was ready to start the meeting.

Stacy tapped her AR glasses and Amir popped into view. She waved at his slightly translucent form and they started into

their weekly update meeting. The system automatically generated a 3-dimensional version of Amir and placed it in the

environment so he appeared to be standing beside her. She knew that her holographic form would be waving at Amir

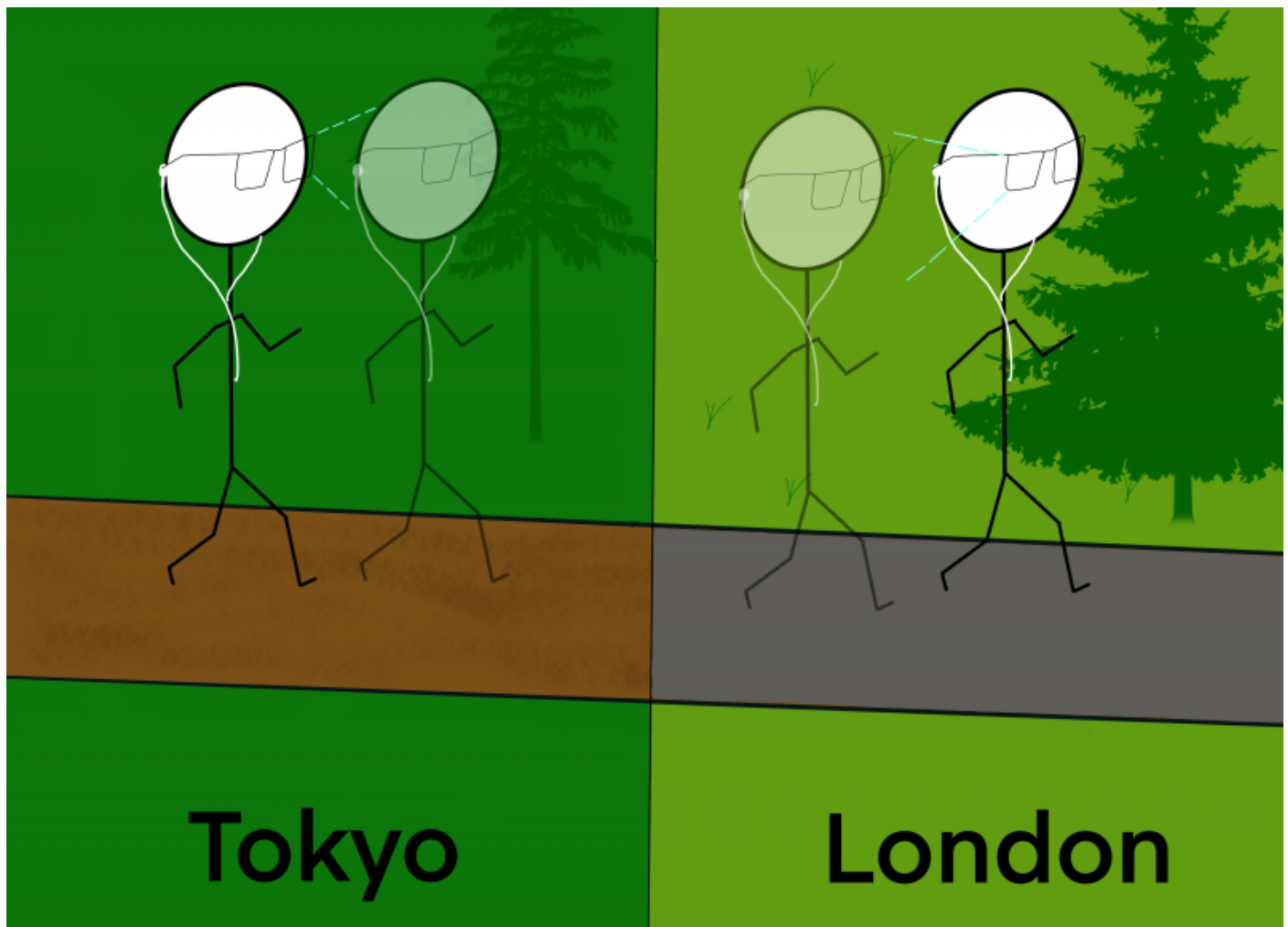through his AR glasses on the other side of the world.

They started their meeting and Amir's form fell into stride beside Stacy. As they walked through the park, Stacy nearly

forgot that Amir wasn't actually with her until a pigeon flew through his hologram. She always got a good laugh when that

happened.

Stacy made a few emphasis gestures to indicate to her recording system that she wanted the previous point to be

highlighted in her notes. So far she had relied fully on the personalized note summary that the system provided after her

meetings, and had not needed to re-listen to any full recordings. She often wondered if she was missing anything

important, since she was essentially relying on the meeting assistant to act as her memory. But the note summaries

seemed to always have all the important topics she could remember, so her musings never turned into actual suspicions.

As they neared the end of the meeting, the topic turned to more idle chatter. Amir gave Stacy an update on all the gossip

that was happening back at the company headquarters while she was away. She had come to rely on these conversations

to feel like she was still in the loop while on assignment. The plan was for her to work in Tokyo for 8 months on this

project, so she was halfway through. She had hologram meetings with her teammates on a regular basis so it didn't feel

that long since she'd seen them.

Stacy wiped a tear from her eye as she recovered from laughing over a particularly juicy bit of office gossip. She quickly

moved to make a deletion gesture for the meeting assistant system. During conversations like this, she was incredibly

thankful that she had the option to scrub parts of the conversation from the record.

After ending the call with Amir she started making her way home. She thought more about how the meeting system was

becoming more and more like a piece of her memory system that she relied on. Her thoughts turned to the deletion

gestures, she was just removing recordings of a memory, but what was the difference between recorded memories and

real memories? She tried to think back on old meetings, could she remember anything the system hadn't remembered for

her? She shivered despite the August sun.

Click here to confirm that you have read the fictional scenario

◯ I have read the scenario above

Imagine yourself participating in a meeting like the one in the scenario. Please indicate the extent to which you would expect to experience the following feelings:

	1 - Very slightly or not at all	2 - A little	3 - Moderately	4 - Quite a bit	5 - Extremely
Active	◯	◯	◯	◯	◯
Afraid	◯	◯	◯	◯	◯
Alert	◯	◯	◯	◯	◯
Ashamed	◯	◯	◯	◯	◯
Attentive	◯	◯	◯	◯	◯
Hostile	◯	◯	◯	◯	◯
Determined	◯	◯	◯	◯	◯
Nervous	◯	◯	◯	◯	◯
Inspired	◯	◯	◯	◯	◯
Upset	◯	◯	◯	◯	◯

Please list three aspects you find most *positive* about this scenario

☐ [_____] 1

☐ [_____] 2

☐ [_____] 3

Please list three aspects you find most *negative* about this scenario

☐ ☐ 1

☐ ☐ 2

☐ ☐ 3

Would you use a system like this?

○ Yes
○ No

Why or why not? (Please write at least 1 complete sentence)

How often would you use a system like this?

○ Daily
○ Weekly
○ Monthly
○ Rarely if ever

What kind of meeting would you use this system for?

☐ Brainstorming/ideation

☐ Planning

☐ Detailed review of work

☐ Regular progress update

☐ [   ] Other

With whom would you want to participate in a meeting like this

☐ Supervisor

☐ Colleague

☐ Someone I supervise

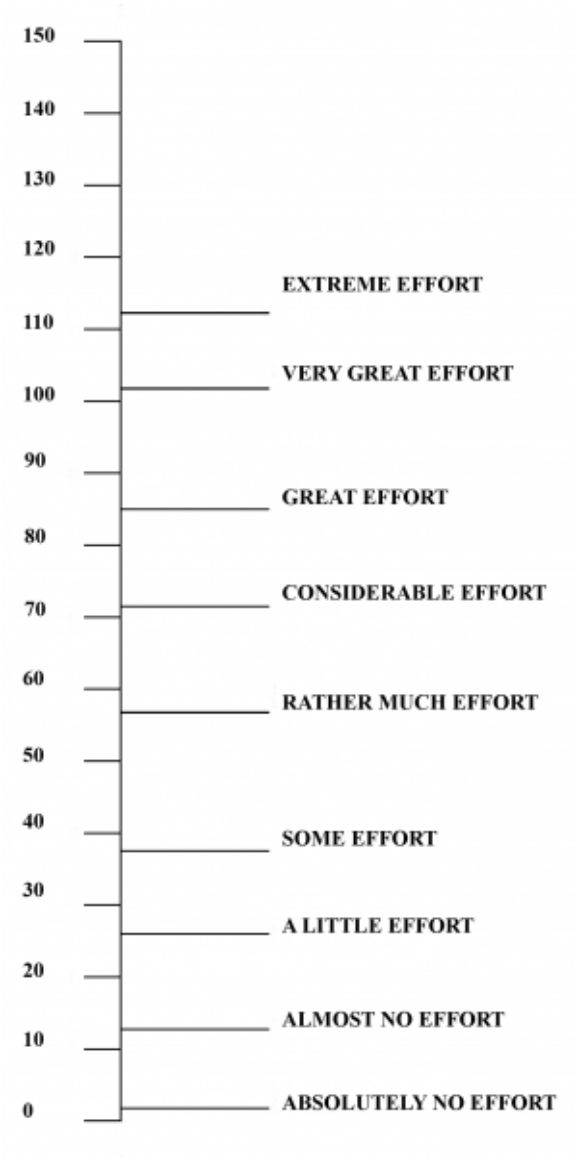☐ Colleagues I am close with

☐ No one

What would you add or change about the scenario to make it better?

What additional things would you bring with you to this meeting? (Please explain what you would use it for. If you answer "nothing", please explain why)

Please rate your perception of the effectiveness of the technology system in:

	1 - Extremely ineffective	2	3 - Neutral	4	5 - Extremely effective
Achieving your own goals	○	○	○	○	○
Achieving your meeting partner's goals	○	○	○	○	○
Achieving your company's goals	○	○	○	○	○

Please rate the level of mental effort you associate with this scenario based on the scale below:

```
150 ─┤
140 ─┤
130 ─┤
120 ─┤
            ──────────  EXTREME EFFORT
110 ─┤
            ──────────  VERY GREAT EFFORT
100 ─┤
90 ─┤
            ──────────  GREAT EFFORT
80 ─┤
            ──────────  CONSIDERABLE EFFORT
70 ─┤
60 ─┤
            ──────────  RATHER MUCH EFFORT
50 ─┤
40 ─┤
            ──────────  SOME EFFORT
30 ─┤
            ──────────  A LITTLE EFFORT
20 ─┤
            ──────────  ALMOST NO EFFORT
10 ─┤
 0 ─┤      ──────────  ABSOLUTELY NO EFFORT
```

What other situations would you use this technology for?

Lecture Block

Please Read the Following Scenario

Setting

Pedro is a first year student who moved to Munich several months ago to begin studying at the university. He is enrolled in a physics class that has taken a novel approach to handling COVID-19 restrictions. Rather than hosting all of the lectures online, some of the course lectures are virtually dropped in local parks. The students in the class can go to the park and follow through the lecture at any time during the week. The students wear augmented reality (AR) glasses that are used to depict the lecturer in the local environment and display 3D information to the students. The students can interact with the 3D models that are presented during the lectures, and they must complete assigned exercises for different lecture segments. The lectures are divided into multiple segments and the students must physically move from place to place in order to access the whole lecture. After a set time the professor can walk the route again and collect the completed assignments.

Narrative

Early Monday morning, Pedro checks his inbox while he drinks a cup of coffee. The new lecture for his Physics course is available, so he clicks the link in the message. The link leads him to a map with GPS coordinates, he quickly recognizes the location as being in one of the large parks near the university campus. The email says that the course will be available until Friday afternoon, and students are able to participate any time they like.

Later that day, Pedro makes his way to the park. He always likes to start the lecture as soon as he can, in case there are any time consuming assignments. Besides, today is a beautiful sunny day and he could use a walk through the park.

Pedro arrives at the given GPS location and finds himself in the shadow of a towering oak tree in the middle of Westpark. Last week, the lecture was in a different park on the north side of the city centre. His professor seemed to be giving them a tour of all the best nature in the city, which was all the better for Pedro who had just moved there when school started.

Pedro activated his augmented reality glasses and started the lecture. His lecturer, Professor Mueller, appeared on the grass in front of him. A virtual screen appeared behind her with a slide of information, and she began to give an introduction to this week's lecture on kinetic energy.

Once the introduction was finished, Prof. Mueller's virtual form started walking towards another large tree. Pedro followed, and let the introduction material soak in as he started thinking about what details the lecture might cover. Once they reached the second tree, the virtual Professor waited for Pedro to indicate that he was ready to start the second segment.

The lecture started diving into more complex details in the second segment. Several 3D models appeared in front of Prof Mueller as she explained the topic in more depth. As this segment came to a close, Pedro was given several exercise questions to complete. He could interact with the mid-air models to assist in working out the answers to the exercises, which proved to be crucially helpful. After 15 minutes, Pedro had completed the exercises and gestured to indicate that he was ready to submit and move on to the next segment. Prof Mueller's virtual form reappeared and started walking towards a nearby fountain.

After completing 4 segments, Pedro was starting to get tired. He could feel that if he kept going he wouldn't absorb nearly as much information. There were still 4 more segments to go, so Pedro indicated to the system that he wanted to save his progress and come back another time. He checked the weather on his phone on the way home and saw that Wednesday was supposed to be nice again, so he made plans to come back to the park and finish the module then.

Later that week, on Friday afternoon, Prof. Mueller retraced her steps through the park. She moved from tree to tree to fountain and onwards, collecting virtually submitted assignments. She knew there was an option to just retrieve all the

exercises without walking to the physical locations, but Prof. Mueller enjoyed the excuse to go visit her favorite parks

every Friday afternoon.
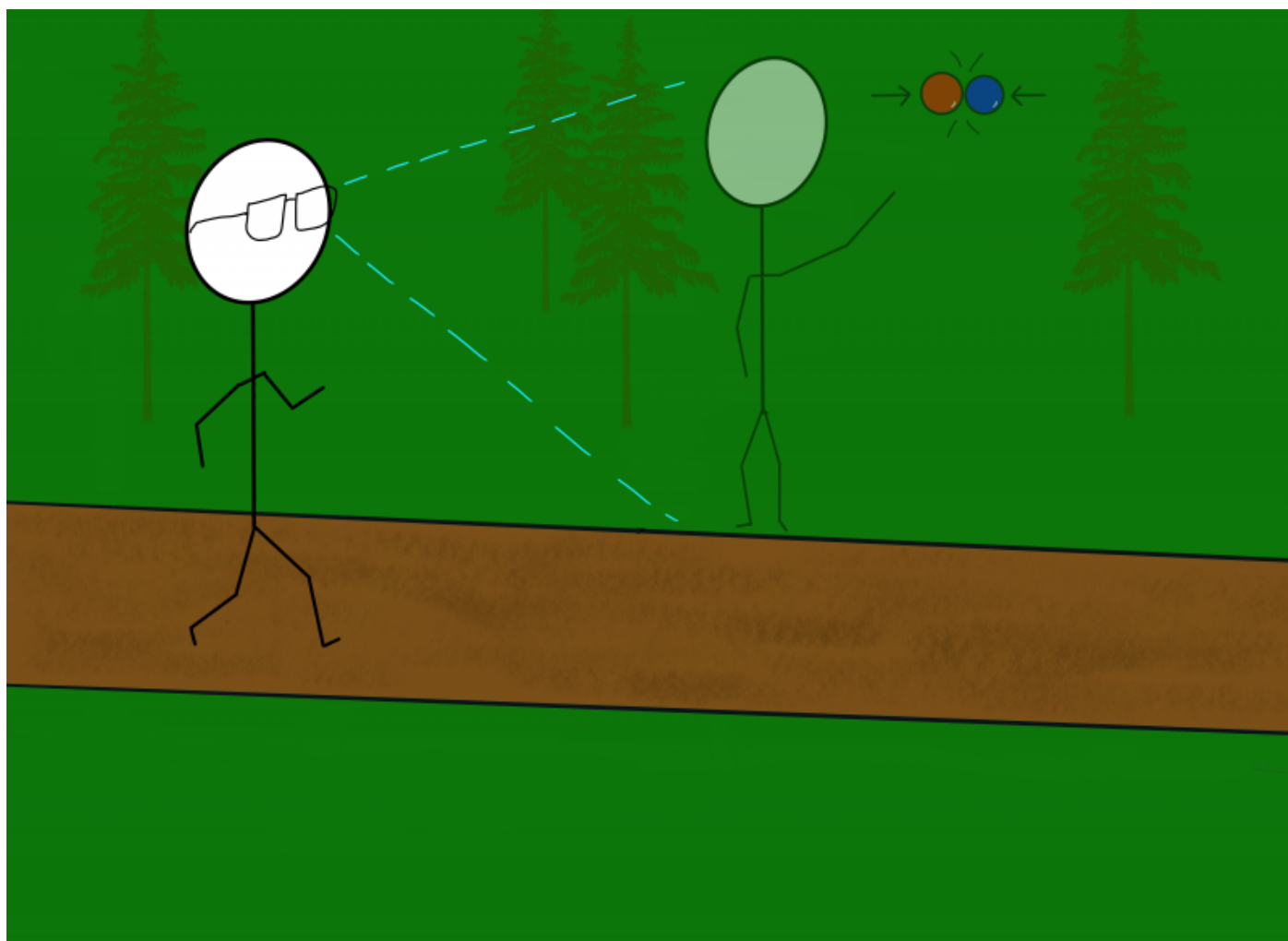
Click here to confirm that you have read the fictional scenario

◯ I have read the scenario above

Imagine yourself participating in a lecture like the one in the scenario. Please indicate the extent to which you would expect to experience the following feelings:

	1 - Very slightly or not at all	2 - A little	3 - Moderately	4 - Quite a bit	5 - Extremely
Active	○	○	○	○	○
Afraid	○	○	○	○	○
Alert	○	○	○	○	○
Ashamed	○	○	○	○	○
Attentive	○	○	○	○	○
Hostile	○	○	○	○	○
Determined	○	○	○	○	○
Nervous	○	○	○	○	○
Inspired	○	○	○	○	○
Upset	○	○	○	○	○

Please list three aspects you find most *positive* about this scenario

☐ [_____] 1

☐ [_____] 2

☐ [_____] 3

Please list three aspects you find most *negative* about this scenario

☐ [   ] 1

☐ [   ] 2

☐ [   ] 3

Would you use a system like this?

◯ Yes
◯ No

Why or why not? (Please write at least 1 complete sentence)

[   ]

How often would you use a system like this?

◯ Daily
◯ Weekly
◯ Monthly
◯ Rarely if ever

What kind of lecture would you use this system for?

☐ Practical course

☐ Theoretical course

☐ ⌐‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾⌐Other

With whom would you want to participate in a lecture like this

☐ Other students
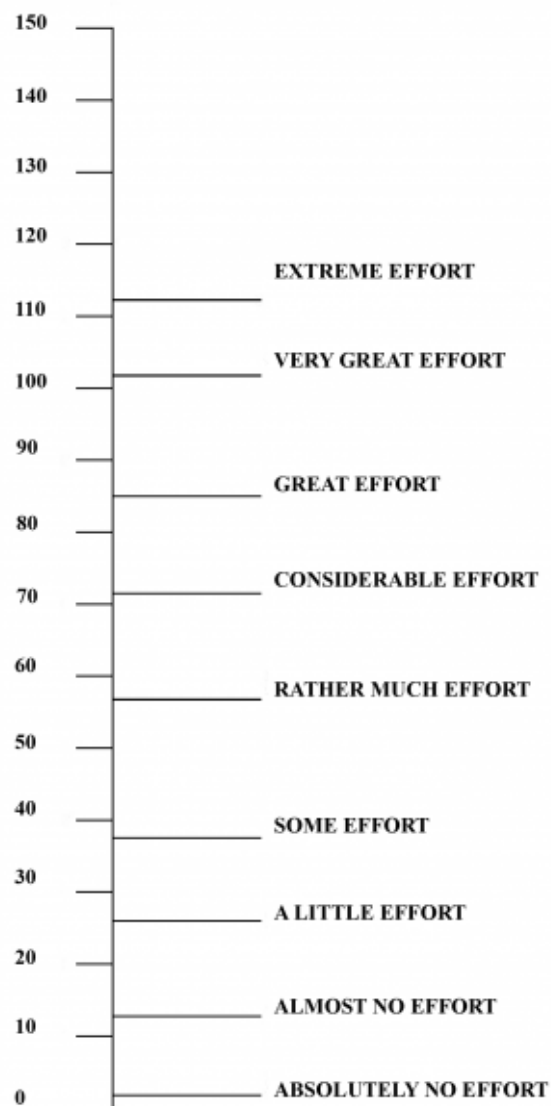
☐ Students I am close with

☐ A lecturer

☐ No one

What would you add or change about the scenario to make it better?

What additional things would you bring with you to this lecture? (Please explain what you would use it for. If you answer "nothing", please explain why)

```

```

Please rate your perception of the effectiveness of the technology system in:

	1 - Extremely ineffective	2	3 - Neutral	4	5 - Extremely effective
Achieving your own goals	○	○	○	○	○
Achieving your classmates' goals	○	○	○	○	○
Achieving your instructor's goals	○	○	○	○	○

Please rate the level of mental effort you associate with this scenario based on the scale below:

```
150 ─
140 ─
130 ─
120 ─
              EXTREME EFFORT
110 ─
              VERY GREAT EFFORT
100 ─
 90 ─
              GREAT EFFORT
 80 ─
              CONSIDERABLE EFFORT
 70 ─
 60 ─
              RATHER MUCH EFFORT
 50 ─
 40 ─
              SOME EFFORT
 30 ─
              A LITTLE EFFORT
 20 ─
              ALMOST NO EFFORT
 10 ─
  0 ─         ABSOLUTELY NO EFFORT
```

What other situations would you use this technology for?

Remote Lecture

Please Read the Following Scenario

Setting

Saamia is a student in Canada who is enrolled in a Massive Online Open Course (MOOC) hosted by a professor at a university in Germany. The course releases new lectures each week that require the students to go to any large outdoor space in their local area so they can walk to new locations between lecture segments. The lecture system analyzes a map of the student's surroundings and transforms the route taken by the professor to a suitable route in each student's local area. Using an augmented reality (AR) system, the professor appears before the students as though he was really in the environment. The AR system displays 3D models and other visual information associated with the lecture, and students are able to take notes. The students are required to complete assigned exercises at each lecture location, which the professor later collects.

Narrative

Saamia woke up early on Thursday morning, she needed to complete this week's lecture for the online course she was registered in. It was the fourth week of this course and she was starting to really enjoy the novel lecture format.

The email for this week said that the lecture contained three segments and needed to be completed before Friday night at midnight. The course was hosted by a university in Germany but Saamia was in Canada, so she needed to be done by Friday afternoon. The instructions for each week were the same: find a spacious location around your town or city where you can walk through nature. Her augmented reality system was required for the course, but this was 2030, her AR system was always with her anyway.

Today, Saamia decided to head to a large park on the east side of the city. She liked to go there to lay in the grass and read, which was her plan after she completed the lecture. She made her way to a large pond near the center of the park and started up the course system, which registered her location and analyzed a map of the surrounding park to create a route. It didn't matter that her park was shaped differently than the one where the professor originally recorded the lecture, the system could adapt to any location in the world.

As the lecture began, the professor appeared in Saamia's environment through her AR system. The professor was mapped onto the environment and stood next to the large pond. A large 3D model floated beside the professor, and he referred to it throughout the segment.

At the end of the segment the virtual professor disappeared and Saamia was assigned several exercise questions related to the topic. She proceeded through the problems using the 3D model and made several mid-air virtual notes as she worked. She was stuck at one point and luckily her question was on the list of pre-recorded Frequently Asked Questions, so a virtual recording of the professor played to explain the topic.

When she finally completed the assignment, she submitted her answers and the virtual professor appeared once again and started walking towards a large tree with a shaded bench. Saamia followed the professor and reflected on the previous segment as she walked. She sat on the bench for a quick break and then indicated that she was ready for the next segment to begin. A new 3D model appeared beside the professor as he began to talk.

The next day in Germany, the professor walked through the park where he had originally posted the lecture route and collected completed assignments from students across the globe. He felt a strange sense of community knowing that over 1,000 students had walked through local parks in over 30 countries to participate in his lecture this week.
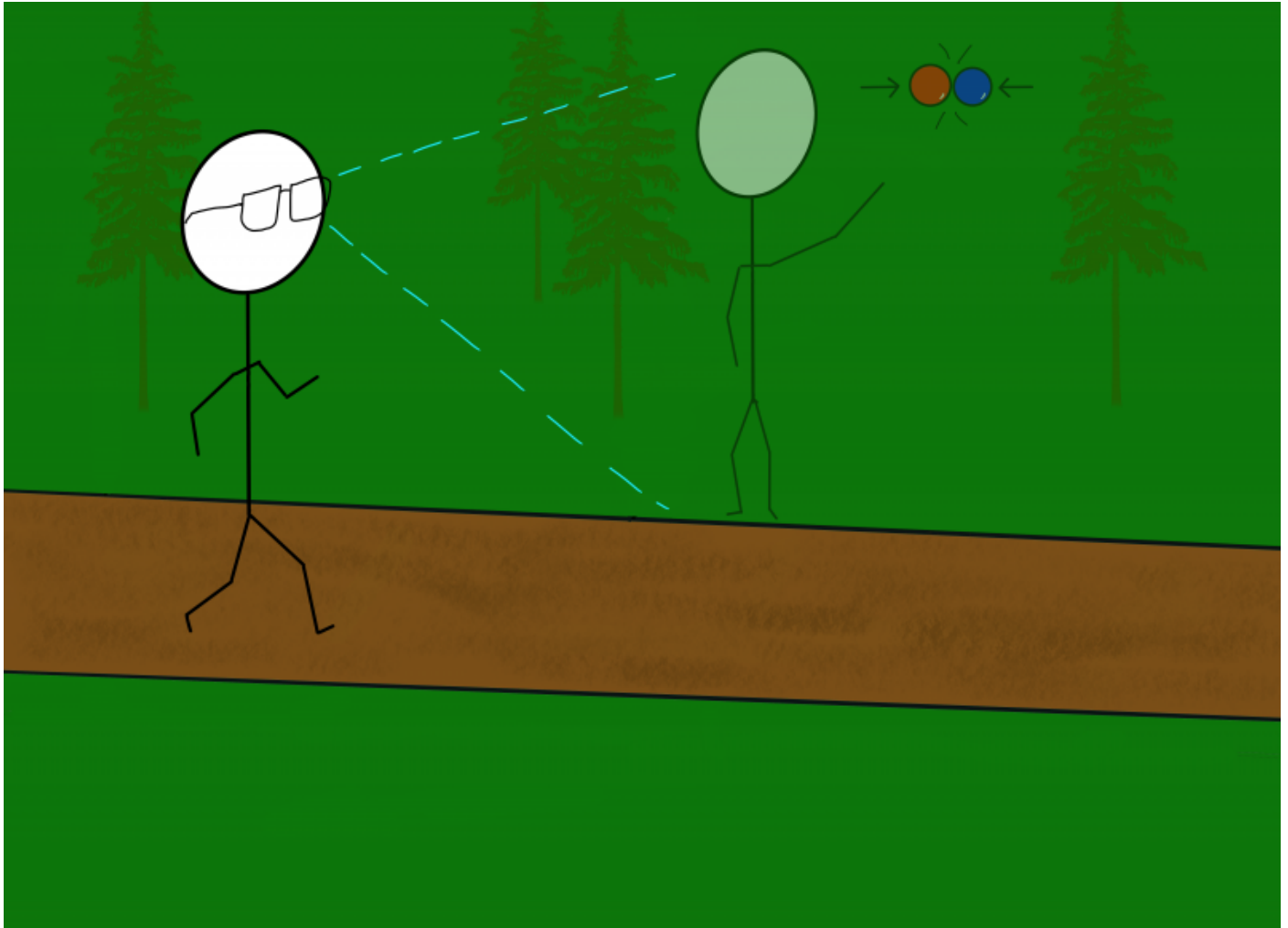
Click here to confirm that you have read the fictional scenario

◯ I have read the scenario above

Imagine yourself participating in a meeting/lecture like the one in the scenario. Please indicate the extent to

which you would expect to experience the following feelings:

	1 - Very slightly or not at all	2 - A little	3 - Moderately	4 - Quite a bit	5 - Extremely

	1 - Very slightly or not at all	2 - A little	3 - Moderately	4 - Quite a bit	5 - Extremely
Active	○	○	○	○	○
Afraid	○	○	○	○	○
Alert	○	○	○	○	○
Ashamed	○	○	○	○	○
Attentive	○	○	○	○	○
Hostile	○	○	○	○	○
Determined	○	○	○	○	○
Nervous	○	○	○	○	○
Inspired	○	○	○	○	○
Upset	○	○	○	○	○

Please list three aspects you find most *positive* about this scenario

☐ [_____] 1

☐ [_____] 2

☐ [_____] 3

Please list three aspects you find most *negative* about this scenario

☐ [_____] 1

☐ _____ 2

☐ _____ 3

Would you use a system like this?

○ Yes
○ No

Why or why not? (Please write at least 1 complete sentence)

_____

How often would you use a system like this?

○ Daily
○ Weekly
○ Monthly
○ Rarely if ever

What kind of lecture would you use this system for?

☐ Practical course

☐ Theoretical course

☐ [   ] Other

With whom would you want to participate in a lecture like this

☐ Other students
☐ Students I am close with
☐ A lecturer
☐ No one

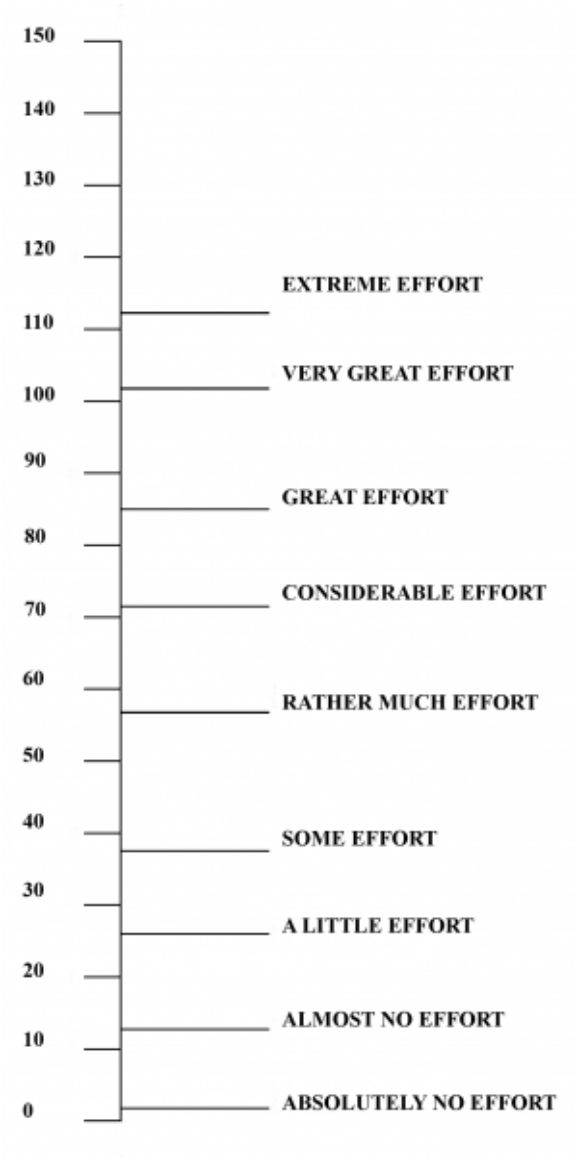## What would you add or change about the scenario to make it better?

[   ]

What additional things would you bring with you to this lecture? (Please explain what you would use it for. If you answer "nothing", please explain why)

[   ]

Please rate your perception of the effectiveness of the technology system in:

	1 - Extremely ineffective	2	3 - Neutral	4	5 - Extremely effective
Achieving your own goals	◯	◯	◯	◯	◯
Achieving your classmates' goals	◯	◯	◯	◯	◯
Achieving your instructor's goals	◯	◯	◯	◯	◯

Please rate the level of mental effort you associate with this scenario based on the scale below:

```
150 ─
140 ─
130 ─
120 ─
                    EXTREME EFFORT
110 ─
                    VERY GREAT EFFORT
100 ─
 90 ─
                    GREAT EFFORT
 80 ─
                    CONSIDERABLE EFFORT
 70 ─
 60 ─
                    RATHER MUCH EFFORT
 50 ─
 40 ─
                    SOME EFFORT
 30 ─
                    A LITTLE EFFORT
 20 ─
                    ALMOST NO EFFORT
 10 ─
  0 ─                ABSOLUTELY NO EFFORT
```

What other situations would you use this technology for?

End Block

Please write any additional thoughts or comments you have about any of the scenarios or technologies.

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Here is your ID: ${e://Field/Random%20ID}

Copy this value to paste into MTurk

When you have copied this ID, please click the next button to submit your survey. (You must complete and submit your survey in order for your task to be approved on MTurk).

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