**Model Suitability Investigation**

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# Purpose of Study

The aim of this study was to investigate how usable the use of 3-dimensional objects are for 2-factor authentication within daily routines. In particular, the study collected how quickly the authentication was completed, where it took place and if it was successful to allow for concrete comparisons to be made against other 2-factor authentication methods currently in use, as well as assessing how the models perform over a longer period of time by assessing the same data for improvements of time/percentage of successful authentications, plus more generally whether or not the object continued to work given continuous use.

# Survey

You will now be asked to complete a short survey on your experience using the 3-dimensional object. The data you provide here will be anonymised as with the other questionnaire data and will be processed to analyse how usable the model you were given is.

The survey can be found here: <https://www.soscisurvey.de/t2fa_study/?q=exit>

# Interview Section

You will now be asked a few questions on your experience using the models, feel free to use as much detail as you wish. There are no right or wrong answers, we are interested in your opinions and the information you provide will be used to improve authentication. This section will be recorded, so please keep this in mind. Recordings will be processed via transcription, then the audio files will be deleted to preserve anonymity. I will inform you when the recording has begun and when it has ended. Once you are ready to begin the interview, please let the investigator know.

Let’s begin with discussing last week:

* How was interacting with the object in the past week?
  + Was there anything in particular you liked?
  + Was there anything in particular you disliked?
* Was there anything that went wrong?
* Was there anything that prevented you from using the item?
* What do you think of the shape and size of the item?
* If the item was a commercial product, would you consider buying it?
  + Why?
  + Why not?

Next, let’s talk about 2-factor authentication in a more general sense:

* Are you familiar with using other 2-factor authentication methods, for example, for your banking or other services?
  + If so, which ones?
  + If not, why?
* Would you prefer to use this method over other 2-factor authentication methods?
  + Why?
  + Why not? What would have to be changed to make it more attractive to use?
* How secure does it feel to use the provided item for authentication?
  + Is it more, less, or about the same as other methods you have used?
* For which kinds of services would you consider using this type of authentication in your daily life?
  + Why?
  + Why not?
* What devices would you consider using this type of authentication on?
  + Why?
  + Why not?

During the study, you used only one object, but there are different objects available. Here are some alternatives that were created for this study, feel free to explore how they work.

* Having had the chance to use all 3 objects, which do you think you would prefer to use?
  + Why? Were there things you liked more about the other objects than the one you were assigned?
* Would you ever consider in the future owning a 3D printer?

That will be all of the questions for this section, thank you for your input. Once again I would like to reiterate that all of the data and information you have provided will be stored anonymously.

# Comments and questions

Finally, if you have any other comments or questions regarding the study right now, please let the investigator know.

If you are interested in the findings of this study, or have any further comments or questions after this meeting, feel free to contact one of the following:

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