Plan Overview

A Data Management Plan created using DMPonline

Title: Design of a low-cost 3D head scanner

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Project Administrator: Yu Song

Affiliation: Delft University of Technology

Template: TU Delft Data Management Plan template (2021)

Project abstract:

For people with irregular head shapes, it is hard to find glasses that fit nicely, since the majority of the glasses is designed for the big mass. To support these people tailormade glasses are sometimes 3D printed. A 3D scan of their head and face that can serve as an underlayer to design the glasses around needs to be captured. The 3D scanners that are currently being used lack in accuracy and are therefore unusable, while the interaction with the design was cumbersome and complicated. Inspired by the idea, this master’s thesis was initiated with the goal of developing a 3D scanner that is able to output higher quality 3D scans, whilst being easy and fast to operate. Next to that, the project is not solely focused on the use case for tailormade glasses, but other use cases have also been taken into consideration.

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Design of a low-cost 3D head scanner

0. Administrative questions

1. Name of data management support staff consulted during the preparation of this plan.

My faculty data steward, Jeff Love, has reviewed this DMP on 17-11-2022.

2. Date of consultation with support staff.

2022-11-11

I. Data description and collection or re-use of existing data

3. Provide a general description of the type of data you will be working with, including any re-used data:

Type of data	File format(s)	How will data be collected (for re-used data: source and terms of use)?	Purpose of processing	Storage location	Who will have access to the data
3D scan of the complete face and/or facial features, without texture mesh	.stl files	3D scanning	To use as benchmark for other scanning technologies	Surf drive	The project team
Age, gender, disease	.csv files	Survey	To place the results into context and understand the differences between different subjects	Surf drive	The project team
Photo's and video's of participants face	.mp4 and .jpg files	Digital camera	To use as input for photogrammetry 3D reconstruction	Surf drive	The project team

4. How much data storage will you require during the project lifetime?

- < 250 GB

II. Documentation and data quality

5. What documentation will accompany data?

- Data will be deposited in a data repository at the end of the project (see section V) and data discoverability and re-usability will be ensured by adhering to the repository’s metadata standards

III. Storage and backup during research process

6. Where will the data (and code, if applicable) be stored and backed-up during the project lifetime?

- Git(lab)/subversion repository at TU Delft
- SURFdrive

IV. Legal and ethical requirements, codes of conduct

7. Does your research involve human subjects or 3rd party datasets collected from human participants?

- Yes

8A. Will you work with personal data? (information about an identified or identifiable natural person)

If you are not sure which option to select, ask your Faculty Data Steward for advice. You can also check with the privacy website or contact the privacy team: privacy-tud@tudelft.nl

- Yes

8B. Will you work with any other types of confidential or classified data or code as listed below? (tick all that apply)

If you are not sure which option to select, ask your Faculty Data Steward for advice.

- No, I will not work with any confidential or classified data/code

9. How will ownership of the data and intellectual property rights to the data be managed?

For projects involving commercially-sensitive research or research involving third parties, seek advice of your Faculty Contract Manager when answering this question. If this is not the case, you can use the example below.

If no confidential information:
The datasets underlying the published papers will be publicly released following the TU Delft Research Data Framework Policy. During the active phase of research, the project leader from TU Delft will oversee the access rights to data (and other outputs), as well as any requests for access from external parties. They will be released publicly no later than at the time of publication of corresponding research papers.

10. Which personal data will you process? Tick all that apply

- Photographs, video materials, performance appraisals or student results
- Signed consent forms
- Gender, date of birth and/or age
- Data collected in Informed Consent form (names and email addresses)
- Other types of personal data - please explain below

3D scan of the face/facial features

11. Please list the categories of data subjects

mental and/or physically handicapped children, students, adults and elderly

12. Will you be sharing personal data with individuals/organisations outside of the EEA (European Economic Area)?

- No

15. What is the legal ground for personal data processing?

- Informed consent

16. Please describe the informed consent procedure you will follow:

All study participants will be asked for their written consent for taking part in the study and for data processing before the start of the interview and/or scanning procedure.

17. Where will you store the signed consent forms?

- Other - please explain below

Locked cabinet

18. Does the processing of the personal data result in a high risk to the data subjects?

If the processing of the personal data results in a high risk to the data subjects, it is required to perform a Data Protection Impact Assessment (DPIA). In order to determine if there is a high risk for the data subjects, please check if any of the options below that are applicable to the processing of the personal data during your research (check all that apply).
If two or more of the options listed below apply, you will have to complete the DPIA. Please get in touch with the privacy team: privacy-tud@tudelft.nl to receive support with DPIA.
If only one of the options listed below applies, your project might need a DPIA. Please get in touch with the privacy team: privacy-tud@tudelft.nl to get advice as to whether DPIA is necessary.
If you have any additional comments, please add them in the box below.

- Data concerning vulnerable data subjects
- Sensitive personal data

19. Did the privacy team advise you to perform a DPIA?

- No

22. What will happen with personal research data after the end of the research project?

- Personal data will be shared with others - please explain which personal data will be shared, with whom, how and whether you have specified this in the informed consent form
- Personal research data will be destroyed after the end of the research project

In the informed consent form, participants can choose to ‘donate their data’ or that their data can be used for this study, but the data will be directly destroyed after finalizing this research and it will not be used in publications and/or presentations. When donating the data, participants agree that their data can be used in further research and that it can be used in publications and/or presentations. The data will then be stored on a SURF drive and is only accessible to the research team.

The data we're talking about are 3D scans of the head, along with data on gender, age and disease.

V. Data sharing and long-term preservation

27. Apart from personal data mentioned in question 22, will any other data be publicly shared?

- All other non-personal data (and code) produced in the project

29. How will you share research data (and code), including the one mentioned in question 22?

- I will share my data and code via git(lab)/subversion and also create a snapshot in a repository

30. How much of your data will be shared in a research data repository?

- < 100 GB

31. When will the data (or code) be shared?

- As soon as corresponding results (papers, theses, reports) are published

32. Under what licence will be the data/code released?

- MIT License

VI. Data management responsibilities and resources

33. Is TU Delft the lead institution for this project?

- Yes, the only institution involved

34. If you leave TU Delft (or are unavailable), who is going to be responsible for the data resulting from this project?

Yu Song, yu.song@tudelft.nl

35. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

4TU.ResearchData is able to archive 1TB of data per researcher per year free of charge for all TU Delft researchers. We do not expect to exceed this and therefore there are no additional costs of long term preservation.