Student Monitoring and case management system - Student Outline DMP

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1. General guidelines

PURPOSE OF THIS TEMPLATE - The purpose of the Outline DMP is to indicate your initial plans for how your data will be collected, shared and stored, and to give you a chance to think about these data-focused aspects of the research process. As your begin doing your research, your data process may change, and it is perfectly acceptable to change your data management plan to accommodate the changes in your research process. Indicate below that you understand the purpose of completing this Outline DMP template.

- I understand the Outline DMP template is a projection of my anticipated data management planning requirements and should be updated as my project develops.

2. Authors and supervisors

PROJECT NAME - Replicate the title of your project, dissertation or thesis exactly as it appears in your proposal document.

Student Monitoring and Case Management System

PERSONAL DETAILS - Indicate the name(s) and student number(s) of the student(s) who will be involved in this project, dissertation or thesis.

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SUPERVISOR(S) DETAILS - Indicate who will supervise this project, dissertation or thesis. If you do not yet have a supervisor, leave this section blank.

Gary Stewart

3. Data Collection/Generation

COLLECTION OF ORIGINAL DATA - Indicate whether or not you intend to gather/produce original data for your study, and provide a brief description of the kind of data you think you will collect. If you are unsure at this time, indicate what you think you are most likely to collect. If you are not intending to gather or collect your own data, declare that here.

- I intend to collect original data (described below).

We intend to collect primarily qualitative data involving the user evaluation of the system by having users answer a survey after use of the system.

USE OF EXISTING DATA - Indicate if you intend to re-use existing data, either from online searches or from datasets provided by your supervisor, lab, or funder. If you are not intending to re-use existing data, declare that here.

- I intend to reuse existing data in my study (described below).

We plan to utilize existing anonymized student data, particularly focusing on student academic performance data. We are collaborating with Kende Kefale, a data analyst at CILT, to get access to the student data. He focuses on data science questions and supports DASS. Kende will provide us with the data and will anonymize it too.

DATA SHARING - Indicate whether or not you are intending to publish your research data. If you are, indicate where you are intending to publish your data and under what licensing conditions, such as Creative Commons. If you are not intending to publish your data, provide reasons and reference the appropriate ethical considerations, commercial applications/patenting

ambition, or data re-use agreements that prevent you from publishing your data.

- I intend to share my data (details below).

Yes, we are planning to publish our research to contribute to the broader academic community to help provide some valuable insights into improving student support services within a tertiary educational environment. It is important to clarify that this project is intended as a Prototyping exercise for an academic advising project led by Riashne Sithaldeen. It is not intended to use genuine student data to generate certain trends or statistics for evaluation. We will focus on exploring the possibilities of a system for this purpose. • We will be primarily evaluating usability and will use the survey data to evaluate the system. This will be published to assess the success of the project and analyse the design and certain features. • If we choose to publish data to showcase the functionality of the system, we will make use of a synthetic smaller subset of data for this purpose. No anonymized student data will be made public.

4. Data Storage

ANTICIPATED DATASET SIZE - Indicate the estimated size of your completed dataset, and indicate whether or not you will need to access additional data storage facilities. If such storage is not provided by your unit or department, you may need to factor in the cost of purchasing additional storage space.

- 20GB or less

The anticipated size of the dataset is likely less than 20GB. We will make use of the medium sized dataset storage options provided by UCT. In particular we will use the GitLab services provided by UCT.

DATA BACKUPS - Indicate how you plan to ensure your data is secure and retrievable in case of errors or hardware failure. Describe what procedures you will put in place to back-up copies of your data and where they will be stored.

- I intend to backup my data using a service provided by UCT (UCT GoogleDrive, UCT OneDrive, Netstorage, ZivaHub etc.).

During the data collection and analysis phase, the GitLab repo for the dataset will be regularly backed up to safeguard against data loss.

5. Data Centre(s)/Repositories

DATA CENTRES/REPOSITORIES - Once your project, dissertation or thesis is complete, it is advisable to curate and archive your completed dataset with an established data centre or repository. Note that you should archive your data even if you are not intending to publish it. Check with your supervisor or funder if you are required to deposit your data in a specific repository, or declare that you will deposit the data in ZivaHub (see the Guidance section).

- At the end of my study, I will deposit my data on a subject or disciplinary repository (details below).

The Computer Science department has established regulations regarding the archiving of Honours projects, and we will ensure that our project documentation and deliverables are prepared in accordance with the department's guidelines for archiving.

METADATA - Metadata is descriptive information that others will need to make sense of your dataset. Metadata includes things like study descriptions or abstracts, study instruments (sample collection schedules, codebooks for variables, survey instruments, etc.), subject codes, and keywords. Indicate what metadata will accompany your curated dataset.

The metadata will include detailed descriptions of the study, providing context and background information on the data collection process, objectives, and methodology employed. Additionally, we will include information on the survey instruments utilized during data collection.

6. Budget

BUDGET - Indicate any costs specifically relating to the management and curation of your data, such as purchasing additional storage space, digitisation of physical media, data storage or curation charges, and data audits. Most student research will be able to make use of free options provided by UCT and will not have to budget for data costs.

- I anticipate data management costs, but storage is provided by my department, unit or research group.