## Research Data Management @HKU



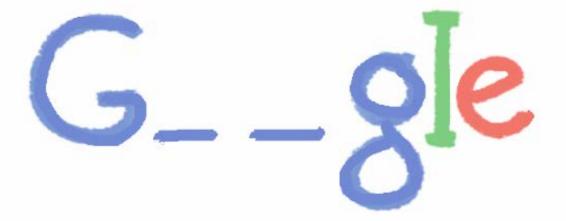
### **TO - DO**

- Read HKU Policy on Research Data and Records Management
- 2. Read Handbook for MPhil & PhD Programmes
- 3. Submit Data Management Plan (DMP) input form
- **4. Prepare** your Data Management Plan with DMPTool
- 5. Submit your dataset

1.

Read HKU Policy on Research Data and Records Management

**TO-DO #1** 



### hku research data



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IPR & Contracts

#### Research Integrity

Responsible Conduct of Research

#### Research Data and Records Management

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Safety Approval & Insurance

Honours & Awards

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### Research Data and Records Management

Home > Research Integrity > Research Data and Records Management

The management of research data and records refers to ways in which recorded information (in whatever form or medium) from research is organised, stored, maintained and accessed both during the lifespan of the research and in the long term. Effective research data and records management supports both high quality research and academic integrity.

HKU recognises the importance of good practice in research data and records management and seeks to promote the highest standards. The University's *Policy on the Management of Research Data and Records* was approved by the Senate at its meeting on May 5, 2015, along with the establishment of a Task Force on Management of Research Data and Records to oversee the planning of the implementation of the Policy.

#### Policy on the Management of Research Data and Records

- The University of Hong Kong seeks to promote the highest standards in the management of research data and
  records (1) as fundamental to both high quality research and academic integrity, and acknowledges its obligations
  under research funders' data-related policy statements and codes of practice, where available (2), to ensure that sound
  systems are in place to promote best practice, including through clear policy, guidance, supervision, training and
  support.
- 2. The University recognises that accurate and retrievable research data are an essential component of any research project and necessary to verify and defend, when required, the process and outcomes of research. Research data are

http://www.rss.hku.hk/integrity/research-data-records-management

To meet the need to



- Replicate claimed research results when called upon to do so
- Ensure **ethical** data collection, storage, and if chosen, re-sharing of data

http://www.rss.hku.hk/integrity/research-data-records-management

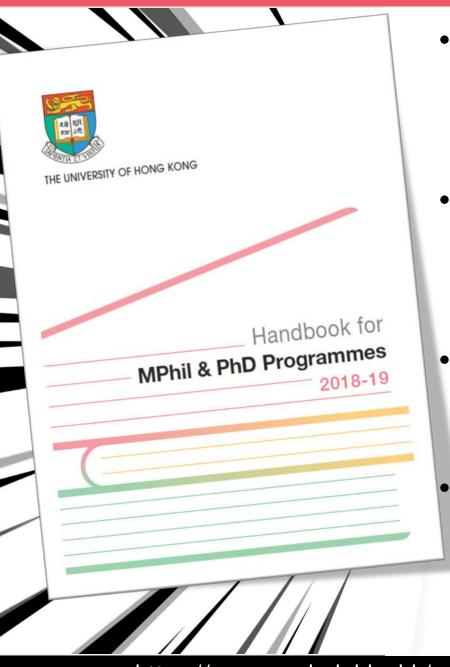
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"Research data and records should be retained for as long as they are of continuing value to the researcher and the wider research community, and as long as specified by research funder, patent law, legislative and other regulatory requirements. The minimum retention period for research data and records is three years after publication or public release of the work of the research."

2.

# Read Handbook for MPhil & PhD Programmes

**TO-DO #2** 



- MPH5 & PHD5 Probation and Confirmation of Candidature – for description of a data management plan (DMP)
- MPH7 & PHD7 Period of Study for describing when in the period of study, a dataset, where applicable, is to be submitted
- MPH14 & PHD14 Submission of Thesis for Examination – for description of dataset submission
- MPH15 & PHD15 Thesis
   Examination for consideration of DMP Entry results and dataset if applicable, and if desired by the examiners

### **Guidelines and Procedures**

Beginning with the September 2017 intake, all HKU research

### postgraduate (RPG) students have responsibility for

- using a data management plan (DMP), where applicable, to describe the use of data in preparation for, or in the generation of their theses, and
- depositing, where applicable, a dataset in the HKU Scholars Hub.

"RPg" includes the degrees of MPhil, PhD, and SJD.

### **Guidelines and Procedures**



Submit a detailed scheme of research + DMP

(if needed)

submit theses + research data

Begin RPG programme at HKU Confirmation of Candidature

Thesis submission for examination

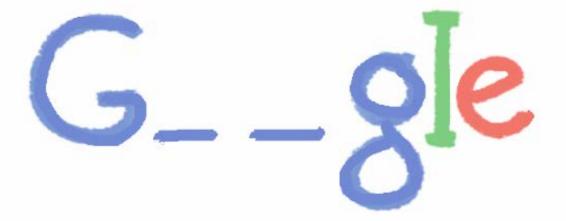
"RPg" includes the degrees of MPhil, PhD, and SJD

Doctor of Legal Science

3.

Submit Data
Management Plan
(DMP) input form

**TO-DO #3** 



### hku research data



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### RESEARCH DATA SERVICES

HKUL RESEARCH DATA SERVICES

THE UNIVERSITY OF HONG KONG LIBRARIES







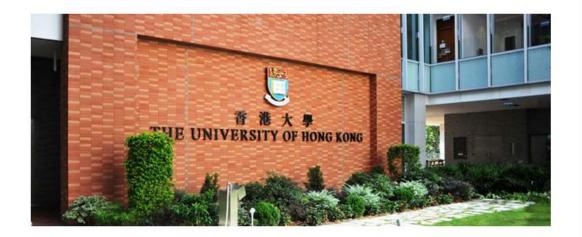


RDM FOR RPG SUPERVISORS



### WHAT IS RESEARCH DATA MANAGEMENT?





HKU now requires Research Data Management (RDM). RDM is a general term covering how you organize, structure, store, and care for the information used or generated during a research project. The benefits of RDM, and the number now of funders, journals, and institutions requiring RDM are many and growing.

CONTINUE READING



### RESEARCH DATA SERVICES

THE UNIVERSITY OF HONG KONG LIBRARIES



RDM FOR RESEARCH POSTGRADUATE (RPG) STUDENTS INSTRUCTIONS FOR DATA

LOGIN RPG INPUT FORM

HOW TO SUBMIT FORM

RDM PLANNING

DATA MANAGEMENT PLAN (DMP)

DMPTOOL

E-THESIS AND DATASET SUBMISSION

RESEARCH POST GRADUATE (RPG) STUDENTS --INSTRUCTIONS FOR DATA





Beginning with the September 2017 intake, all HKU Research Postgraduate (RPg) students have

Primary Supervisor:

Co-Supervisor:

### RESEARCH DATA SERVICES

THE UNIVERSITY OF HONG KONG LIBRARIES



RDM FOR RESEARCH POSTGRADUATE (RPG) STUDENTS - INSTRUCTIONS FOR DATA

LOGIN RPG INPUT FORM

RDM PLANNING

DATA MANAGEMENT PLAN (DMP)

RPG INPUT: DMP & DATASET

E-THESIS AND DATASET SUBMISSION



#### RDM FOR RESEARCH



### RPG DATA MANAGEMENT PLAN (DMP) INPUT FORM



(from 2017-09-01 to

(from 2017-09-01 to

2019-08-31)

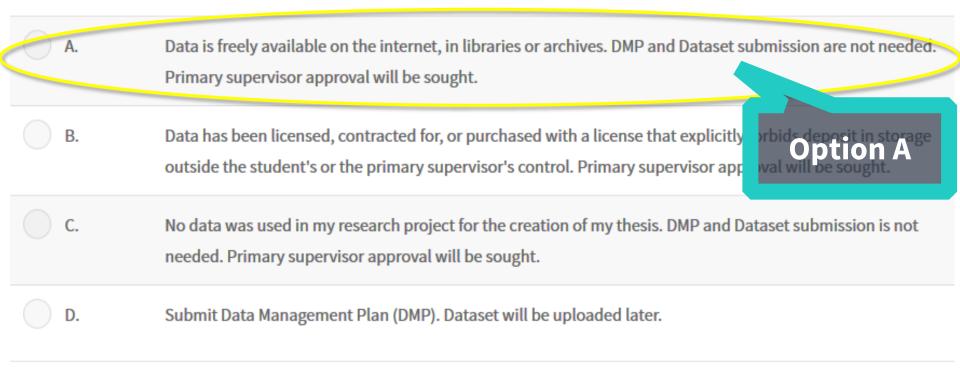
2019-08-31)

PROFILE		
University No.:	3012345678	
Name:	Mr CHAN Tai Man	
Email:	u1234567@hku.hk	
Degree:	Master of Philosophy	
Department/Faculty:	School of Biomedical Sciences	
Year of Admission:	2017	
Hub RPg URL: http://hub.hku.hk/cris/rpg/rpg123456		

Professor Chan Siu Man

Professor Wong Mei Yi

### PLEASE CHOOSE ONE OF THE FOLLOWING: A, B, C, OR D.



After submitting this form, an email will go to your supervisors. If your primary supervisor rejects this choice, you will need to return to this form, and make a choice that is acceptable to your primary supervisor.

Please click "SUBMIT" button below to proceed, or click "LOGOUT" to exit form without submission.

SUBMIT

#### YOU HAVE SELECTED OPTION A:

Data is freely available on the internet, in libraries or archives. DMP and Dataset submission are not needed. Primary A. supervisor approval will be sought.

### The URL of your dataset retrieved online:

https://figshare.com/articles/\_Genetic\_Predisposition\_to\_Increased\_Blood

### Citation, including address of library or archive used (if not online):

Proitsi, P, Lupton, MK, Velayudhan, L, Newhouse, S, Fogh, I, Tsolaki, M, Daniilidou, M, Pritchard, M, Kloszewska, I, Soininen, H, Mecocci, P, Vellas, B, Williams, J, Stewart, R, Sham, P, Lovestone, S, Powell, JF. (2014). Data from: Genetic Predisposition to Increased Blood Cholesterol and Triglyceride Lipid Levels and Risk of Alzheimer Disease: A Mendelian Randomization Analysis. [Data File]. The authors confirm that, for approved reasons, some access restrictions apply to the data underlying the findings. Data are from the Genetic and Environmental Risk for Alzheimer's Disease 1 (GERAD1) Consortium, the AddNeuroMed, the Dementia Case Register (DCR) and the Alzheimer's Disease Neuroimaging Initiative (ADNI) studies. Data access is available on request from the following: GERAD1, williamsj@cardiff.ac.uk. AddNeuroMed,simon.lovestone@psych.ox.ac.uk. DCR data, john.powell@kcl.ac.uk. ADNI data is publicly available (adni.loni.usc.edu).

Approved by Professor Chan Siu Man Approval status:

Reference No.: 2018011304

Print this page:



### PLEASE CHOOSE ONE OF THE FOLLOWING: A, B, C, OR D.

**Option B** 



- B. Data has been licensed, contracted for, or purchased with a license that explicitly forbids deposit in storage outside the student's or the primary supervisor's control. Primary supervisor approval will be sought.
- C. No data was used in my research project for the creation of my thesis. DMP and Dataset submission is not needed. Primary supervisor approval will be sought.
- D. Submit Data Management Plan (DMP). Dataset will be uploaded later.

After submitting this form, an email will go to your supervisors. If your primary supervisor rejects this choice, you will need to return to this form, and make a choice that is acceptable to your primary supervisor.

Please click "SUBMIT" button below to proceed, or click "LOGOUT" to exit form without submission.

SUBMIT

#### YOU HAVE SELECTED OPTION B:

HKUL RESEARCH DATA SERVICES

B. Data has been licensed, contracted for, or purchased with a license that explicitly forbids deposit in storage outside the student's or the primary supervisor's control. Primary supervisor approval will be sought.

### The name of licensor, seller, or owner of your dataset:

Proitsi, P, Lupton. Data are purchased from the Genetic and Environmental Risk for Alzheimer's Disease 1 (GERAD1) Consortium.

Approval status:

Approved by Professor Chan Siu Man

Reference No.:

2018011304

Print this page:



### PLEASE CHOOSE ONE OF THE FOLLOWING: A, B, C, OR D.

### **Option C**

- A. Data is freely available on the internet, in libraries or archives. DMP and Dataset submedian enormeeded.

  Primary supervisor approval will be sought.
- B. Data has been licensed, contracted for, or purchased with a license that explicitly for outside the student's or the primary supervisor's control. Primary supervisor approval will be sought.
- C. No data was used in my research project for the creation of my thesis. DMP and Dataset submission is not needed. Primary supervisor approval will be sought.
- D. Submit Data Management Plan (DMP). Dataset will be uploaded later.

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Please click "SUBMIT" button below to proceed, or click "LOGOUT" to exit form without submission.

SUBMIT

### PLEASE CHOOSE ONE OF THE FOLLOWING: A, B, C, OR D.

**Option D** 

- A. Data is freely available on the internet, in libraries or archives. DMP and Dataset suprint on Primary supervisor approval will be sought.
- B. Data has been licensed, contracted for, or purchased with a license that explicitly forbids deposit in storage outside the student's or the primary supervisor's control. Primary supervisor approval will be sought.
- C. No data was used in my research project for the creation of my thesis. DMP and Dataset submission is not needed. Primary supervisor approval will be sought.
  - D. Submit Data Management Plan (DMP). Dataset will be uploaded later.

After submitting this form, an email will go to your supervisors. If your primary supervisor rejects this choice, you will need to return to this form, and make a choice that is acceptable to your primary supervisor.

Please click "SUBMIT" button below to proceed, or click "LOGOUT" to exit form without submission.

SUBMIT

### YOU HAVE SELECTED OPTION D:

L RESEARCH DATA SERVICES

D. Submit Data Management Plan (DMP). Dataset will be uploaded later.

You may proceed to submit your Data Management Plan (DMP) by drag and drop your file to the box below:

Drag and drop files here, or click in box to choose files.

After submitting your DMP, an email will go to your supervisors.

If you would like to update your DMP later, you may revisit this page to upload and replace your previous DMP with an updated version.

Please click "SUBMIT DMP NOW" button below to proceed, or click "LOGOUT" to exit form without submission.

SUBMIT DMP NOW

4.

Prepare your Data
Management Plan
with DMPTool

**TO-DO #4** 

### What is Data Management Plan?

### A document in which you describe:

- what data you will collect during your research project,
- how you are going to store and manage the data during the project,
- And what will happen to the data after the project is finished.

#### Data Management Plan for Post-Graduate Research Projects

Name:	
Student ID:	
Email:	
Faculty/Department:	
Supervisor:	

#### RESEARCH PROJECT TITLE

#### DATA COLLECTION

How will the data be collected or created?

What data will you collect or create?

#### DOCUMENTATION AND METADATA

What documentation and metadata will accompany the data?

#### ETHICS AND LEGAL COMPLIANCE

How will you manage copyright and Intellectual Property Rights (IPR) issues?

How will you manage any ethical issues?

#### STORAGE AND BACKUP

How will you manage access and security?

How will the data be stored and backed up during the research?

#### SELECTION AND PRESERVATION

What is the long-term preservation plan for the dataset?

Which data are of long-term value and should be retained, shared, and/or preserved?

#### DATA SHARING

Are any restrictions on data sharing required?

How will you share the data?

#### RESPONSIBILITIES AND RESOURCES

What resources will you require to deliver your plan?

Who will be responsible for data management?

Prepared by:	Endorsed by:	
RPg student:	Supervisor:	
Date:	Date:	

- Your Name
- University ID
- Email
- Degree
- Department/Faculty
- Field of Study
- Supervisor(s)
- Project Title and Description
- Date and Version

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### RESPONSIBILITIES AND RESOURCES

Who will be responsible for data management?

I will be responsible

What resources will you require to deliver your plan?

Cost for acquiring external hard disks for off-site copy

Prepared by:		Approve	ed by:
	Postgraduate student		Supervisor
Name:	1 Man	Name:	Brown /
Date:	6-11-2017	Date:	6-11-2017





### DMPTool by the Numbers



374 Users 272

Plans



HKU

Participating Institution

Contact Us

For any questions, please send email to HKUL Research Data Services at researchdata@hku.hk



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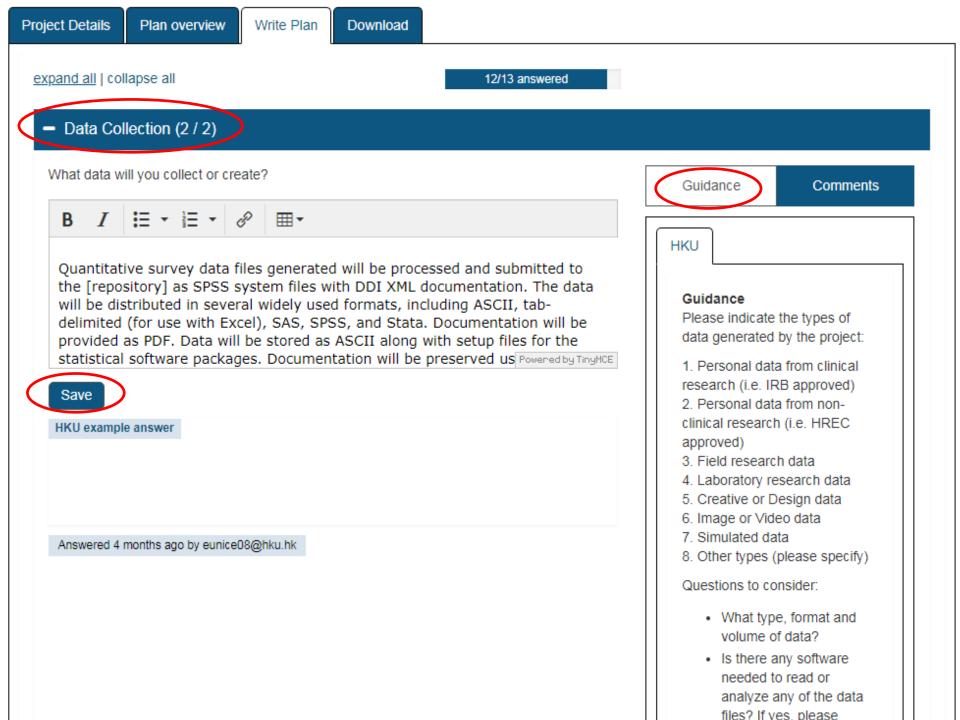
DMPTool@HKU Libraries HKU Libraries

Research Data Services



### Project 1







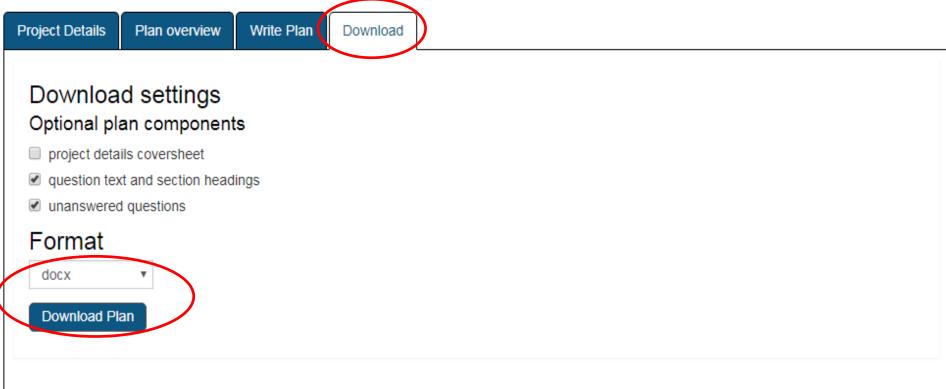
### The University of Hong Kong

DMPTool@HKU Libraries HKU Libraries

Research Data Services

### My Dashboard Create plan Admin Features -

### Project 1





### DATA MANAGEMENT PLAN

The project will collect and analyze the following data:

- -Conductivity and temperature from glider surveys.
- -Horizontal currents from shipboard ADCP and the HDSS Doppler Sonars on the R.V. Revelle.
- -LADCP/CTD profiles from the R.V.Revelle.
- Moored ADCPs.
- -CTD-u,v profiles from the McLane profilers.
- -CTD profiles from the SIO Fast-CTD.
- -Fine and microscale temperature from CHIPODs and moored thermistor chains.

### Quick-Response data management

The T-TIDE PIs have experience with this collaborative efforts, such as the ONR IW Sea. To guide both modeling and the Pro data will be centralized on a server at AP

Scout Quick-look data responsibil J.Klymak LADCP-CTD

S. Johnston SIO glider an

L.Rainville Co-operative

H. Simmons, J.Klymak Ongoing m

R.Pinkel, J. Klymak F-C TD site s

The centralized data access will be

1. Data Collection What data will you collect or create? How will the data be collected or created?

with the McLane and thermistor chain data provided by the relevant PIS.

https://library.ucsd.edu/research-and-collections/data-curation/datamanagement/dmpsample/DMP-Example-Pinkel.pdf

### Metadata

Metadata will address attribution, discovery, and preservation. The following metadata standards may be used to describe and organize the project's data:

- The IEEE 1484.12.1 2002 Standard for Learning Object Metadata (LOM) may be used to
  describe and make discoverable learning material data, so that it can be searched for and reused by others. Descriptors include format and pedagogical attributes.
- METS is the Metadata Encoding and Transmission Standard, which will be used to encode
  the various types of digital objects created by the project. The METS standard is expressed
  via XML, and is supported and maintained by the Library of Congress. It is used in a number
  of other dissemination frameworks, including the NJVID project
  (http://www.nivid.net/index.php).

### Access and Sharing

The data generated by the project will be ho above. It will be placed in the repository in a seeking access to the various public-use data access directly with the LIU Library. Restrict

### Period of Retention

Selection and Retention – Long Island Unive with the project and ensure that it is accessi frameworks. LIU will archive all additional o

### Archiving and Preservation

The repository framework will serve to pres changing technologies and formats.

Storage & Backup

2. Documentation

and Metadata

What documentation and metadata will accompany the data?

ea

S.

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### **Data Confidentiality**

Research records will be kept confidential, and access will be limited to the PI and primary research team members. For each testing session, the recorded data will have any identifying information removed and will be relabeled with study code numbers. A database which relates study code numbers to consent forms and identifying information will be stored separately on password-protected computers in a secured, locked office. These computers are housed in research facilities in the Psychology Building at Indiana University-Bloomington, and in the Psychology Department at UCSD. A list of the names of individuals who have participated in each study will be maintained in order to ensure that no individual is tested more than once on related studies. To maintain the privacy of the participants, any report of individual data will only consist of performance measures without any demographic or identifying information.

### 3. Ethics and Legal Compliance

How will you manage any ethical issues?
How will you manage copyright and
Intellectual Property Rights (IPR) issues?

https://library.ucsd.edu/research-and-collections/data-curation/data-management/dmpsample/DMP-Example-Psych.doc

### **Intellectual Property Rights (IPR)**

- Intellectual property rights (IPR) include copyright, patents, trademarks and design rights.
- The HKU Intellectual Property Rights Policy sets
   out ownership of intellectual property rights of
   staff and students and explains the University
   position on both copyright and patents.

http://www.rss.hku.hk/contracts/ipr

# **Intellectual Property Rights (IPR)**

"If research data included in a thesis are obtained by a collaborative effort (including collaboration between the Student and a supervisor or other researcher at the University), such data may be the joint property of the Student and the collaborating party.

It is strongly advised that Students and supervisors/researchers make clear agreements in advance concerning the ownership and use of Intellectual Property Rights created in connection with a Student thesis."

http://www.rss.hku.hk/contracts/ipr

## 2. Data Storage and Preservation

Our short-term data storage plan, which will be used during the experiment, will be to save copies of 1) the .txt metadata file and 2) the Excel spreadsheet as .csv files to an external drive, and to take the external drive off site nightly. We will use the Subversion version control system to update our data and metadata files daily on the University of Alberta Mathematics Department server. We will also have the laboratory notebook as a hard copy backup that will be stored in a fire-proof cabinet.

The data set will be submitted to the Knowledge Network for Biocomplexity (KNB) data repository for long-term preservation and storage. The authors will submit metadata in EML format along with the data to facilitate its reuse. The data manager will be responsible for updating metadata and data author contact information in the KNB.

# 4. Storage and Backup

How will the data be stored and backed up during the research?

How will you manage access and security?

https://www.dataone.org/sites/all/documents/DMP\_Copepod\_Formatted.pdf

## 5. Plans for Archiving and Preservation

All original raw data files and data source processing programs will be versioned over time and maintained in a date-stamped file structure with text files documenting the provenance. The database will be preserved in perpetuity, housed initially at the New Mexico Interstate Stream Commission Central Office in addition to an off-site copy maintained at an NMISC field office and mirrored at the Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI). We will also identify appropriate archiving institutions that might serve as a mirror repository. A data policy and stewardship plan will be established. In addition to archiving, each database table will be exported to a delimited text format to ensure accessibility of the data by other software programs. The data manager at the NMISC will be responsible for the management of long-term storage and archived data.

## 5. Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?
What is the long-term preservation plan for the dataset?

https://www.dataone.org/sites/all/documents/DMP\_Hydrologic\_Formatted.pdf

## 4. Data Dissemination and Policies for Data Sharing and Public Access

We are required to share our data with the CAISN network after all data have been collected and metadata have been generated. This should be no more than 6 months after the experiments are completed. In order to gain access to CAISN data, interested parties must contact the CAISN data manager (data@caisn.ca) or the authors and explain their intended use. Data requests will be approved by the authors after review of the proposed use.

The authors will retain rights to the data until the resulting publication is produced, within two years of data production. After publication (or after two years, whichever is first), the authors will open data to public use. After publication, we will submit our data to the KNB enabling discovery and use by the wider scientific community. Interested parties will be able to download the data directly from KNB without contacting the authors, but will still be encouraged to give credit to the authors for the data used by citing a KNB accession number either in the publication's text or in the references list.

## 6. Data Sharing

How will you share the data?
Are any restrictions on data sharing required?

https://www.dataone.org/sites/all/d@cuments/DMP\_Copepod\_Formatted.pdf

## Before you share or publish your data

- Réview the Depositor's Agreement, and Takedown Policy
- Perhaps you need to anonymize or redact your data before sharing?
- If you have created data which may have commercial value, please consult Versitech, or the

**Technology Transfer Office.** 

http://www.tto.hku.hk



## 5. Roles and responsibilities

The PI will be responsible for all data management during and after data collection.

https://www.dataone.org/sites/all/documents/DMP\_Copepod\_Formatted.pdf

### 5. Plans for Archiving and Preservation

All original raw data files and data source processing programs will be versioned over time and maintained in a date-stamped file structure with text files documenting the provenance. The database will be preserved in perpetuity, housed initially at the New Mexico Interstate Stream Commission Central Office in addition to an off-site copy maintained at an NMISC field office and mirrored at the Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI). We will also identify appropriate archiving institutions that might serve as a mirror repository. A data policy and stewardship plan will be established. In addition to archiving, each database table will be exported to a delimited text format to ensure accessibility of the data by other software programs. The data manager at the NMISC will be responsible for the management of long-term storage and archived data.

## 7. Responsibilities and Resources

Who will be responsible for data management?
What resources will you require to deliver your plan?

https://www.dataone.org/sites/all/documents/DMP\_Hydrologic\_Formatted.pdf

#### YOU HAVE SELECTED OPTION D:

HKUL RESEARCH DATA SERVICES

D. Submit Data Management Plan (DMP). Dataset will be uploaded later.

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Drag and drop files here, or click in box to choose files.

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If you would like to update your DMP later, you may revisit this page to upload and replace your previous DMP with an updated version.

Please click "SUBMIT DMP NOW" button below to proceed, or click "LOGOUT" to exit form without submission.

SUBMIT DMP NOW

LOGOUT

#### YOU HAVE SELECTED OPTION D:

**Option D** 

D. Submit Data Management Plan (DMP). Dataset will be uploaded later.

#### DATA MANAGEMENT PLAN SUBMISSION STATUS

Version 1 DMP Submitted on 20180113 15:04:34 Download DMP File

Approval status: Approved by Professor Chan Ying Shing

Reference No.: 2018011304

Print this page :

If you would like to further update your DMP, you may revisit this page to upload and replace your previous DMP by clicking "Update DMP" button below.

UPDATE DMP

You have not yet submitted your DATESET, click "SUBMIT DATASET" to submit!

SUBMIT DATASET

5.
Submit your
Dataset

TO-DO #5

## Essential,

- Data Management Plan (DMP)
- Dataset(s) quantitative and/or qualitative, raw and/or processed,
- Metadata about all the data files including file formats (please use open formats wherever possible), Code book (i.e. description of variables), etc.
- Readme file, giving particulars of data

https://lib.hku.hk/researchdata/data.htm

If data includes **personal data**, the data should be put under **restricted access**,

Personal data from non-clinical research (i.e.
 Human Research Ethics Committee (HREC)
 approved) [http://www.rss.hku.hk/integrity/ethics compliance/hrec] provide approval code, consent
 forms, ethical application form, please state the
 risk of re-identification from the different datafiles
 and how the risk has been minimised for any dataset
 intended for sharing.

https://lib.hku.hk/researchdata/data.htm

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## If data includes interviews,

- Interview transcripts
- Blank questionnaire & interviewer guidelines

## If field research data,

 provide copy of file research notebook in digital format, preferably machine readable

## If lab research data,

 of working papers and/or lab research notebooks in digital format, preferably machine readable

## For simulated data,

- how was it generated? Please either explain or provide a link.
- For other types of data, such as Image or video data, Creative or Design data,
- please explain what type of data and how was it collected/generated.
- If software is needed to read or analyze any of the datafiles,
- please provide full details of software name, version needed, and any instructions necessary to obtain the software. If you have written your own script for analyzing the data, please include this script also in final deposit.



# Thanks! Any questions?



research data white with the control of the control

E-THESIS AND DATASET SUBMISSION

Beginning with the September 2017 intake, all HKU Research Postgraduate (RPg) students have