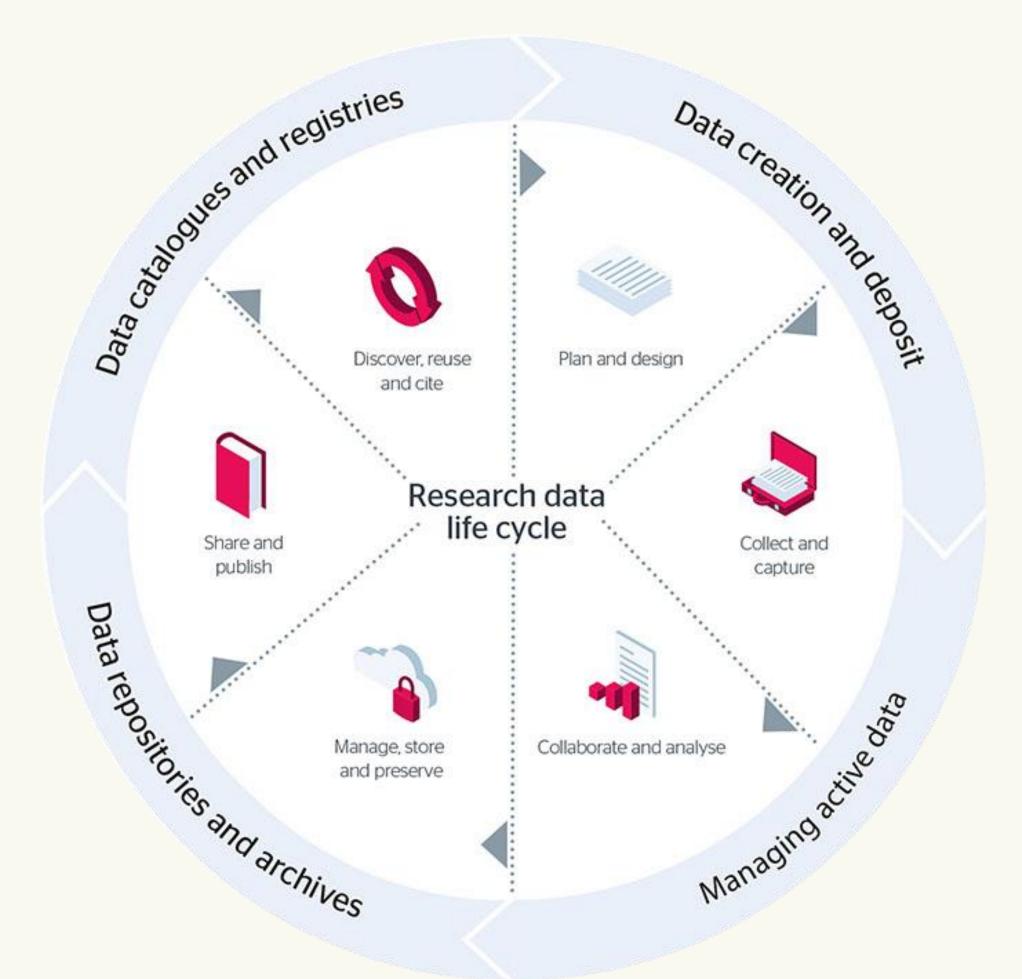


# Research Data Management @HKU

**SEPTEMBER 11, 2019** 

Orientation Programme for Research Students 2019

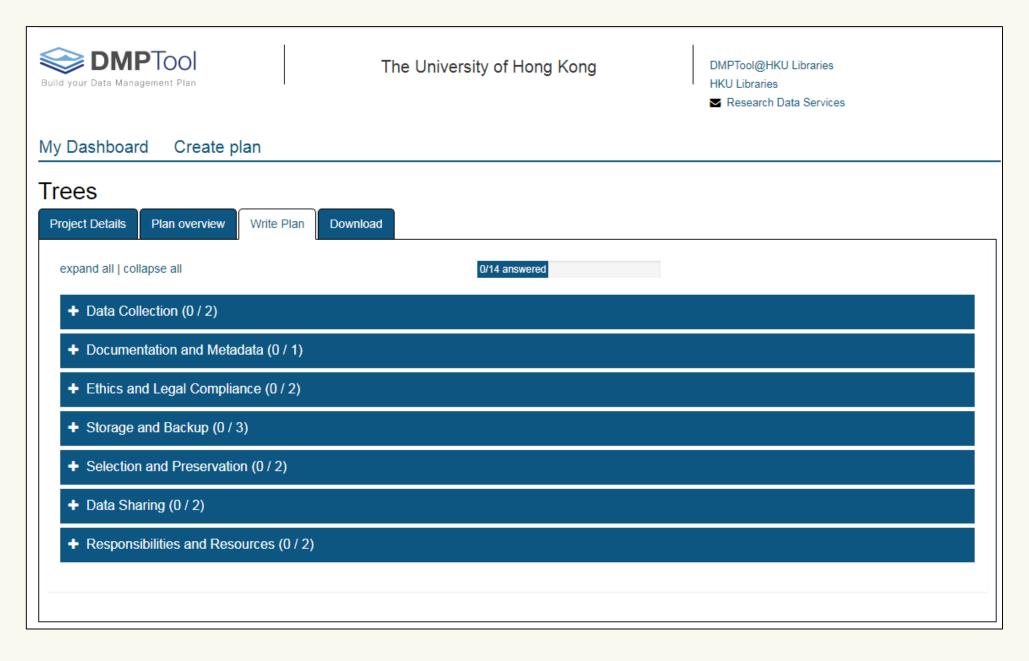




# What is...

Source: JISC

## Data Management Plan (DMP)



How to...

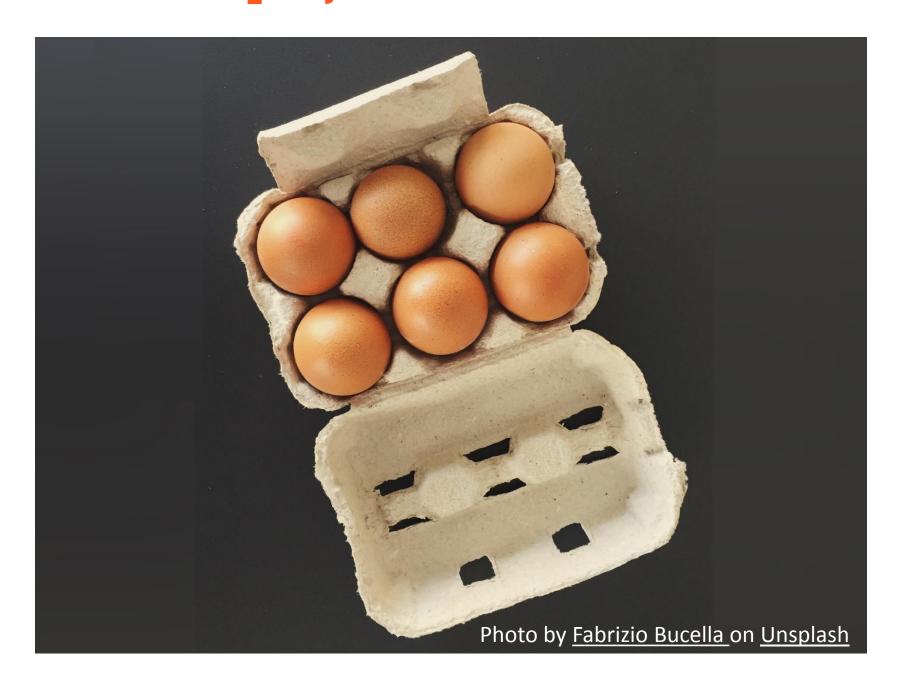
https://hub.hku.hk/researchdata/rpg10.htm

### 1. What data you will collect during your research project

- Text
- Numbers
- Multimedia
- Models
- Software
- Specimen



# 2. How you are going to store and manage the data during and after the project



# Why...





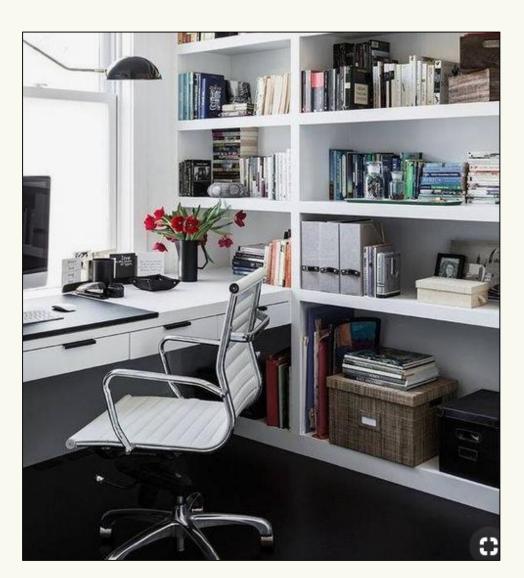


Image courtesy of: https://www.pinterest.co.uk/pin/520165825700330461/



You have to

do it

# Why...

### **HKU Policy on Research Data and Records Management**

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

Honours & Awards

RAE 2014 & Resources



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

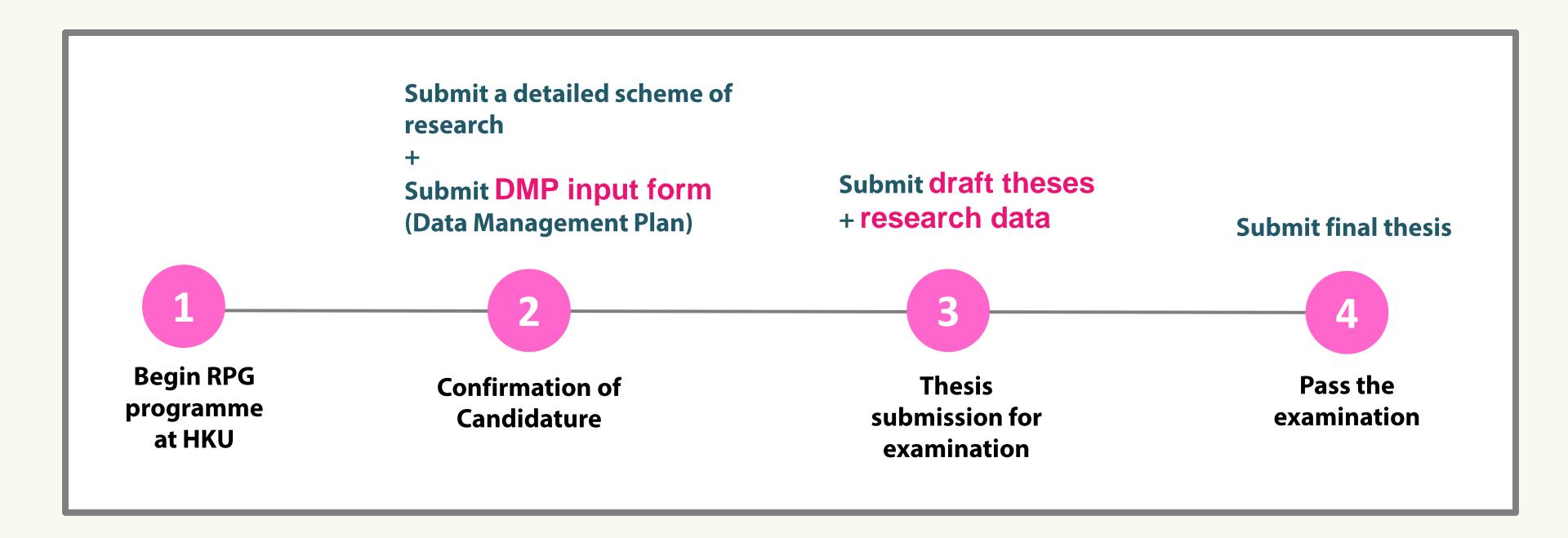
- 1. The University of Hong Kong seeks to promote the highest standards in the management of research data and records (1) as fundamental to both high quality research and academic integrity, and acknowledges its obligations under research funders' data-related policy statements and codes of practice, 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

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



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.

### **HKU Guidelines and Procedures**



"RPg" includes the degrees of MPhil, PhD, and SJD (Doctor of Legal Science)

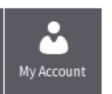
### **Publishers**

nature > nature research > editorial policies > reporting standards and availability of data, materials, code and protocols



## natureresearch





#### Editorial policies

Authorship

Competing interests

Confidentiality

Plagiarism and duplicate publication

Image integrity and standards

Preprints & Conference Proceedings

Peer-review policy

Reporting standards and availability of data, materials, code and protocols

Ethics and biosecurity

Correction and retraction policy

Press and embargo policies

# Reporting standards and availability of data, materials, code and protocols

An inherent principle of publication is that others should be able to replicate and build upon the authors' published claims. A condition of publication in a Nature Research journal is that authors are required to make materials, data, code, and associated protocols promptly available to readers without undue qualifications. Any restrictions on the availability of materials or information must be disclosed to the editors at the time of submission. Any restrictions must also be disclosed in the submitted manuscript.

After publication, readers who encounter refusal by the authors to comply with these policies should contact the chief editor of the journal. In cases where editors are unable to resolve a complaint, the journal may refer the matter to the authors' funding institution and/or publish a formal statement of correction, attached online to the publication, stating that readers have been unable to obtain necessary materials to replicate the findings.

### **Funders**



Funding

Key issues

How we work

About us

News

Find a scheme

Guidance

Develop your research career

Funded people and projects

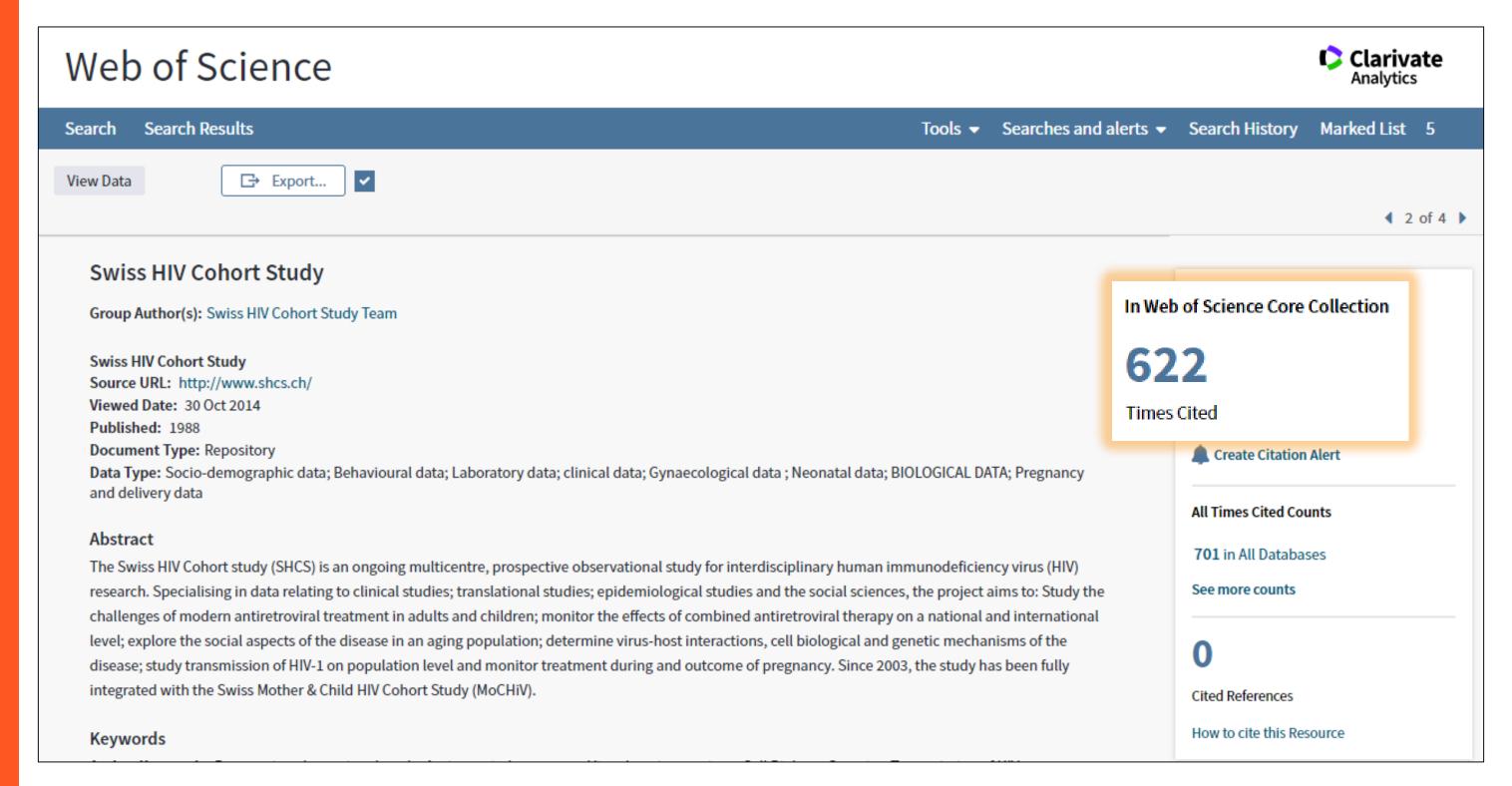
### Our policy

- 1. We expect our researchers to maximise the availability of research data, software and materials with as few restrictions as possible. As a minimum, the data underpinning research papers should be made available to other researchers at the time of publication, as well as any original software that is required to view datasets or to replicate analyses. Where research data relates to public health emergencies, researchers must share quality-assured interim and final data as rapidly and widely as possible, and in advance of journal publication.
- 2. Anyone applying for Wellcome funding must consider their approach to managing and sharing anticipated outputs at the research proposal stage. In cases where these outputs are significant generating data, software or materials that will hold clear value as a resource for others in academia or industry applicants will need to include an <u>outputs management plan</u> explaining their planned approach. We will review this plan when making our funding decision. We will fund any justified costs for delivering the plan as part of funding the research.
- 3. Researchers' approach to outputs management should be dynamic. Plans should reflect established best practice in the respective research field. In particular, researchers should make sure their shared outputs:
- are discoverable
- use recognised community repositories for data and other outputs where these exist
- use persistent identifiers for these outputs wherever possible.



Why...

## Dataset as a scholarly product



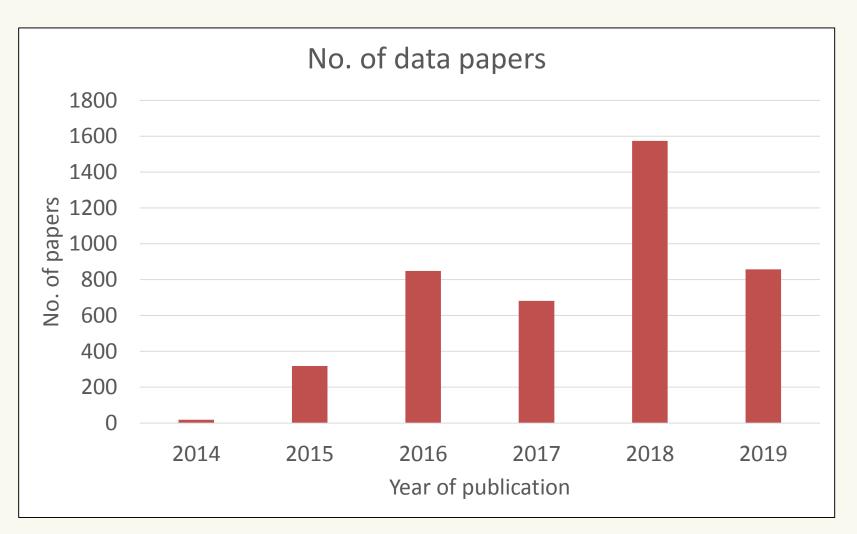
Source: Web of Science (28 August 2019)

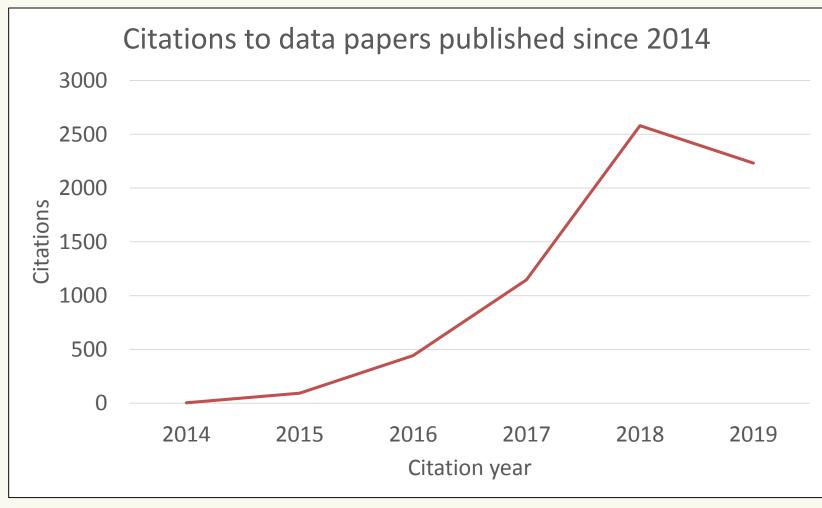
## Data papers describe datasets





Source: Scopus (2 September 2019)







You have to

do it

You will benefit You will benefit

others

Source: JIS

# Why...



Raw data from macaque experiment published daily online.





We are committed to working in partnership to ensure that the global response to public health emergencies is informed by the best available research evidence and data...





### ... data sharing today enables new science tomorrow...

Source: Data sharing and the future of science. (2018). *Nature Communications*, 9(1), 2817.



**EDITORIAL** OPEN

### Data sharing and the future of science

Who benefits from sharing data? The scientists of future do, as data sharing today enables new science tomorrow. Far from being mere rehashes of old datasets, evidence shows that studies based on analyses of previously published data can achieve just as much impact as original projects.

economics and meteorology have been (https://www.humanconnectome.org/

community, particularly in certain dis- to any interested researcher.

"There is a strong argument to be made that leaving data unshared is an impediment to the scientists of the future."

ata sharing has a long history makes new types of research possible. in many areas of research. Consider, for instance, research using the Although the push to encou- Human Connectome Project (HCP) datarage social and biological sci- set, one of the data sharing initiatives entists to share and pool their included in the Milham et al. study. The results is a recent one<sup>1</sup>, in other fields the HCP currently contains extensive fMRI, use of shared data has been the norm for structural MRI and behavioural data from some time. For over a century, much of 1200 healthy young adult volunteers based on publicly shared data, for example. study/hcp-young-adult), and is expanding However, trepidation in relation to data- to encompass child, adolescent and older sharing is still prevalent in the scientific adult brains. These data are made available

> ciplines. The issues that While data sharing had a somewhat make some researchers rocky start in the world of cognitive neureluctant to share their roscience<sup>4</sup>, the success of the HCP and the own data have been many influential studies based on it shows much discussed<sup>2</sup>, but that its time has come. Without data researchers considering sharing, it would be all but impossible for a using shared data as a single research group to scan 1200 people. basis for their own MPI scans are expensive and neuroima-

## Before you share or publish your data

- Review the Depositor's Agreement and Takedown Policy
- Anonymize or redact your data before sharing
- If you have created data which may have commercial value, please consult Technology Transfer Office. http://www.tto.hku.hk

# Find out more

https://hub.hku.hk/researchdata/rds.htm

Email: researchdata@hku.hk



