Research Ethics & Research Integrity

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General framework

"In general terms, responsible conduct in research is simply good citizenship applied to professional life. Researchers who report their work honestly, accurately, efficiently and objectively are on the right road when it comes to responsible conduct. Anyone who is dishonest, knowingly reports inaccurate results, wastes funds, or allows personal bias to influence scientific findings is not [on the right road to responsible conduct]"

- (US Office of Research Integrity, "Introduction to Research Integrity"; Steneck 2007, xi).

Outline

- Good practice: key ethical principles
- Bad practice: research misconduct
- Human participants research

Many materials adapted from HKU documents

Acknowledge that I have learnt/borrowed from:

Profs. Roland Chin, Frederick Leung, Terry Au, Danny Chan, Sara Jordan and many other colleagues in HKU

Key ethical principles for research

- Honesty in the conduct and communication of research (to participants and researchers)
- Objectivity and openness
- Duty of care to participants and research team
- Fairness in giving credit and appropriate acknowledgement
- Responsibility for nurturing new researchers

Honesty

- Honesty is required in presenting research goals and intentions (when seeking funds and participants), and in reporting procedures and findings (to funders and the research community)
- Such presentation and reporting must be full and fair

Objectivity & Openness

- Objectivity requires accuracy in collection & reporting
- Conclusions based on facts capable of verification
- Impartial and transparent handling of data, which are suitably archived
- Research findings and the underpinning data made accessible to the research community for verification - HKU will soon require research data management plans to ensure that data is not lost, assist with research integrity questions & enable sharing
- Build trust through open disclosure of relationships that might bias decisions

Duty of Care

- We have a duty to care for the human participants, the animals, and the environment under study and for ensuring that research is done safely.

Fairness in giving credit and acknowledgement

- We must be fair in giving credit for the work of other researchers who participate in the research.
- Everyone who made an intellectual contribution (i.e. conceive, execute, analyse or interpret) should be given credit
- Research team should endorse authorship
- Good disclosure practice indicates who did what on any publication

Responsibility for nurturing new researchers

- We have a responsibility in supervising and nurturing research students and young researchers
- We must be aware of, disclose and address any potential conflict of interest
- In particular, positions of seniority or responsibility should never be abused so as to put pressure on colleagues or research students, for example, to forego their right to proper acknowledgement of their contribution to the research or publication in question.
- Protect whistleblowers

Research misconduct

- Plagiarism
- Fabrication & Falsification
- Unauthorised use of data
- Improper ascription of authorship
- Nondisclosure of potential conflict of interest
- Failure to obtain ethical approval (if involve humans or vertebrate animals)
- Failure to ensure suitable safety protocols
- Other conduct that breaches ethical principles
- Authors held responsible for misconduct in paper!

Plagiarism

- Most people understand that copying text without acknowledgement is wrong
- Includes reuse of ideas, data, words without acknowledgement
- Even includes copying yourself without acknowledgement (journal may hold copyright, should only take credit once for an idea or piece of research)
- Need to protect integrity of peer review and not “borrow” ideas from articles under review

Fabrication

Creating data that was not properly collected/generated

Falsification

Changing the data

- Obvious when it comes to changing numbers
- Omitting data without disclosure
- Cleaning up images without disclosure

Must not mislead others about how the data were generated/collected/analysed

Unauthorised use of data

If data has been shared with you, you should have a formal agreement in place to authorise any use including publication

Improper ascription of authorship

The rules of authorship vary by discipline, but the principles are clear:

- Do not claim credit for what you did not do
- Do not give credit where it is not deserved or without agreement
- Obtaining the funding for the facilities or the research is not sufficient

Nondisclosure of potential conflict of interest

Need to understand the different forms of conflict of interest, such as:

- Financial interest: payment that may call into question your independence
- Power: staff and student – can they say no?
- Family/friends: unfair employment decisions
- Institutional: support your institution against others

Must all be disclosed

May mean your absence from discussion or exclusion from decisions to avoid bias

Failure to obtain ethical approval (for studies with humans or vertebrate animals)

- The specific rules will depend on your institution and funders
- Must obtain ethical approval before starting research, but some funders require approval earlier
- We will look in detail at human participants later

Failure to ensure suitable safety protocols

- This may seem obvious to staff who have been well trained in laboratory practice
- A serious risk whenever we purchase equipment which we have not been trained to use
- Try some methodology that we are not experienced in
- Also covers fieldwork in risky places
- The risk is to participants and members of research team

Other conduct that breaches ethical principles

Not possible to provide a comprehensive list of all conduct that is misbehaviour

More constructive to ensure that we behave well, while seeking advice where the ethical line may not be obvious.

Human participants research

- Who needs approval?
- Background
- Risk assessment
- Informed consent

Who should obtain human subjects ethical approval?

- Anyone doing research with human participants (vertebrate animals has another process)
- Includes surveys, interviews, focus groups, observation of people, analysis of existing personal data (data linked to living person)

Important Notes

- Covers all methodologies of human subjects research, qualitative or quantitative, regardless of the funding source (including unfunded)
- Supervisors responsible for ensuring students obtain necessary approval

Historical Context

- Medical ethics
  - Nuremburg trials – Nazi medical experiments
  - Helsinki declaration in 1964 for biomedical research on humans
  - Tuskogee – diagnosed, untreated syphilis in poor black Americans from 1932-1972
- Abuse of personal data
  - Nazi identification of Jews (used govt. records)
  - Eastern Germany in 50s-70s (Stasi spying)
  - US identification of American Japanese in WWII (used Census data)

Belmont Report

Respect for persons:

- Autonomous (make own decisions) agents
- Protect those with diminished autonomy

Beneficence:

- Do no harm
- Maximize possible benefits
- Minimize possible risks

Justice:

- Benefits and risks of research distributed fairly

Missing?:

- Transparency - need to communicate and obtain community support

Hong Kong Context

- Like Canada, Australia, New Zealand, EU, Singapore (but unlike Mainland China) HK has a Personal Data Protection Law
- Personal data: linked to living person so it can be retrieved
- Strength: consistent law across private/public sector and across paper/computer records
- Challenge: use must be consistent with purposes stated at collection
- Ethical considerations go beyond the law, e.g. personal data only covers living persons, although privacy is clearly perceived by family members and friends as extending beyond death

Data Protection Principles (I)

- Lawful and fair collection
- Personal data kept accurate, up-to-date and kept no longer than necessary (can anonymize, then no longer personal data)
- Personal data should be used for the specific purposes for which they were collected or a directly related purpose
- Require appropriate security measures - do not carry unencrypted personal data on USB sticks!

Data Protection Principles (II)

- Openness by data users about personal data they hold and the main purposes for which personal data are used.
- Data subjects have right of access & correction

Note: Personal data are exempt from purpose principle if used only for preparing statistics or carrying out research and the results do not identify any data subjects

Risk Assessment for Data Collection I

Risk is combination of probability and magnitude of outcome

Risk assessment ensures focus on how to minimize risk

Minimal risk: risk no greater than ordinarily encountered in daily life

- Treatment/Intervention
- Privacy risk (sensitive data or re-identification)
- Response burden (e.g. children get tired)
- Physical/Psychological stress/discomfort/pain

Risk Assessment for Data Collection II

- Physical/medical risk (e.g. smoking)
- Minor deception (minimal risk and reveal later)
- Video/audio recording (video needs to be justified as more privacy invasive, audio may enable re-identification)
- Conflict of interest (e.g. teacher/student, money)
- Vulnerable subjects (free and capable consent)
- Review is expedited for minimal risk proposals

Existing Personal Data

Being in the public domain or that you will not keep personal identifiers does NOT make it exempt from review (may have been released without consent and might be re-identified)

- Collected for research (provide consent form or collection statement)
- Sensitive data
- Public access with/without approval
- Type of personal identifier (direct, indirect, none)
- Keep personal identifiers

Informed Consent

- Must be sufficient information about the study and its effect on subjects (disclose all risk, burden)
- Must be comprehensible (simplify for younger, less educated, oral if illiterate)
- Must be voluntary (no coercion, undue influence or harassment)
- Must contain contact information
- Must inform about data retention
- Must normally be documented (by signature, email or audio recording) including whether agree to recording, but exemption from documentation allowed when justified for anonymous, minimal risk situations (use information sheet: informed consent without recording identity)

Data Retention

- Data containing personal identifiers should normally be kept for at least 1-5 years after first publication to address research integrity concerns
- Long term retention (archiving) should have explicit consent for personal data (e.g. personal historical records) or anonymise so that it is no longer personal data

Specific Issues I

- RGC GRF proposals need ethical approval before end April so need approval before then
- Age of informed consent (primary, secondary, university student, adult) and active/passive parent/child consent/assent?
- How to handle non-consent when video recording a group (outside camera range or filter image)?
- Participant observations (may need to renegotiate consent)
- At risk participants (offer support channel)

Specific Issues II

- Collecting data in another university (need approval in both places)
- Longitudinal studies (linkage and right of withdrawal)
- Personal data transfer (need to check consistent with purpose specified)
- Re-identification risk can limit protection of removing names from datasets

Specific Issues III

- Justification of recording video? How to minimize re-identification risk as video re-identification easy? Unnecessary for transcription?
- Justification of recording audio? – minimal risk unless risk from content or aural re-identification
- Collecting text samples – minimal risk unless risk from content
- Student assignments – avoid conflict of interest (cannot say no to teacher before exam?), re-identification (remove personal identifiers, use transcript, analysis not by teacher?)
- In randomized control trials, do controls get equitable treatment (justice)?

Detailed information & samples

HKU Forms, FAQ, guidelines, sample consent/assent, information sheet, deception, confidentiality forms are openly available here:

http://www.rss.hku.hk/integrity/ethics-compliance/hrecncf

The forms and FAQ are regularly updated, so please always download current forms

Note: You must check the process for your own institution

Happy to answer questions

Please email me if you have any questions at:

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