2-25-2008

Data Management and Whistle-Blowing

Michael C. Loui

University of Illinois at Urbana-Champaign

Follow this and additional works at: http://scholarworks.umass.edu/esence

Part of the Engineering Commons, Life Sciences Commons, Medicine and Health Sciences Commons, Physical Sciences and Mathematics Commons, and the Social and Behavioral Sciences Commons

Recommended Citation

http://scholarworks.umass.edu/esence/275

This Presentation is brought to you for free and open access by the Science, Technology and Society Initiative at ScholarWorks@UMass Amherst. It has been accepted for inclusion in Ethics in Science and Engineering National Clearinghouse by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.
Data Management and Whistle-Blowing

Michael C. Loui

Department of Electrical and Computer Engineering
University of Illinois at Urbana-Champaign

February 25, 2008
What are the ethical issues in the management of research data?

- **Ownership**
  - Depends on sponsor (govt, industry, foundation)
  - Rights of subjects, researchers, university

- **Collection**
  - Permission
  - Accurate recording, completeness

- **Protection**

- **Sharing**
  - Verifiable and reproducible by others
We are developing role-play scenarios on research ethics

- Ethics Education in Science and Engineering Program, National Science Foundation Grant EEC-0628814
- M. C. Loui and C. K. Gunsalus, co-PIs
- Bradley Bummel and Kerri Kristich, graduate research assistants
- Approved by the campus Institutional Review Board
You will participate in a role-play of an actual scenario

- Instructions
- Prepare roles
  - Professor
  - Student
- Run role-play
- Discussion
- Survey
Prepare your role

- Plan for the role-play conversation
  - Read scenario
  - Questions to ask other person
  - Answers for anticipated questions
- Observers just read everything
Run the role-play

- Each group has a professor role and a student role
- Some groups have an observer role
- Run role-play
What happened in the role-play?

- What did professors and students do well?
- What should they have asked or said instead?
- What did the professor and student decide to do? For what reasons?
What constitutes research misconduct?

- **Fabrication**: creating research data
- **Falsification**: altering research data in unacceptable ways (e.g., deleting outliers without good reason)
- **Plagiarism**: using the words and ideas of others without proper attribution
Why should you report / not report potential research misconduct?

- **Reasons to not report**
  - Potential retaliation
  - Personal distress

- **Reasons to report**
  - Reputation of lab, university
  - Perspectives of other researchers
  - Loss of public trust, loss of funding
What should you do in a potential whistle-blowing situation?

- Consider alternative explanations
  - You may be wrong
- Ask questions
  - Do not make charges
- Find documentation, emphasize facts
- Seek advice from trusted colleague
How does the campus respond to allegations of research misconduct?

- Administered by Research Standards Officer (research integrity officer)
- 1. *Inquiry*: enough evidence to proceed?
  - Fast, informal
- 2. *Investigation*: did misconduct occur?
  - Formal hearing, due process
What actually happened in this role-play scenario?

- Professor confirmed student’s concerns
- Inquiry, then investigation determined post-doc had fabricated data
- Student completed doctorate, became academic
- Post-doc dropped out of science, went to medical school
Please complete the survey; pick up the summary sheet

- What lessons did you learn?
- How could the role-play be improved?
- On separate sheet, kindly enter name and e-mail address for follow-up
Reference and Acknowledgments


- Supported by the National Science Foundation under Grant EEC-0628814. The views, opinions, and conclusions expressed here are not necessarily those of the National Science Foundation or the University of Illinois.