



Recent Developments and Key Issues in Research Integrity

*An Overview of Research Integrity and Ethics
and its programming at UVA
November 6, 2024*

An Overview of Research Integrity at UVA

- Responsible Conduct of Research Program
 - Online training/Live Courses for credit
 - Outreach and Education
 - Policies/Procedures
 - Website / Guidance
 - Tools for RCR (iThenticate/Proofig)
- Research Misconduct
 - Education and Prevention
 - Complaint Assessment and Investigation

“Research responsibility begins from the initiation of research plan and goes beyond the prevention of misconduct.”

[Nath \(2021\)](#)



Discuss Use
Artificial
Intelligence in
Research &
Research
Integrity



Promote Tools
to Ensure
Credibility and
Quality in
Research:
iThenticate/
Proofig



Advance Data
Management



Support
Excellence in
Global
Collaboration

Use of AI in Research & Research Integrity



Ethical Considerations

- Bias Mitigation
- Transparency
- Reproducibility and Verification
- Automated Analysis
- Verification Tools
- Regulatory Compliance
- Accountability
- Data Privacy
- Algorithmic Bias

Risks of Failure in Data Management in Research

- Data Integrity Issues
 - Poor data management can lead to inaccuracies, affecting research outcomes.
 - Reproducibility Challenges
 - Inconsistent Results
- Lack of Transparency
- Ethical and Legal Risks
 - Non-compliance: data protection regulations (e.g., GDPR, HIPAA).
- Reputation Damage
 - Credibility Loss
 - Retractions
- Operational Inefficiencies



Technological Advances and Ethics



- **Digital Image Manipulation:** Addressing issues of data integrity.
- **Text Recycling:** Understanding and managing self-plagiarism.
- **Promotion of iThenticate:** Protecting research and students.
- **Pre-print Servers & Predatory Journals:** Navigating the ethics of early publication.

Global Trends and Collaborations

- **Multidisciplinary Research:** Increasing collaboration across disciplines and countries.
- **Ethical Harmonization:** Need for consistent ethical standards globally.



Policy and Regulation Updates

- NSF Training Requirements: New mandates for ethical training for all research personnel.
- [HHS ORI: New research misconduct regulations.](#)

Research Misconduct Procedure



Assessment

- The RIO evaluates the complaint to determine whether it falls within the scope of the UVA Research Misconduct Policy. If it does, the case moves to the inquiry stage.



Inquiry

- The RIO establishes an inquiry committee who will gather preliminary evidence and may conduct interviews to determine whether an investigation is warranted.



Investigation

- The RIO-established committee examines research records and related evidence in depth, conducts interviews, and develops a factual record leading to recommended findings on whether research misconduct has been committed, by whom, and to what extent.

Concepts to Prevent Misconduct

- De-stigmatize Corrections
- Promote a Culture of Transparency
- Incentivize Through Recognition and Rewards
- Implement Robust Training Programs
- Strengthen Institutional Policy
- Use Technological Tools
- Foster Collaborative Efforts

Collaborative Opportunities

Encourage UVA's existing experts in ethics and the study of research integrity

Ensure collaboration between OVPR and schools/departments on workshops, training, courses, and mentorship

Provide administrative support to schools with evolving research integrity activities

Recognize outstanding research contributions for those working in study of the field of research integrity & ethics

Involve faculty in the development of institutional research ethics policies