Academic integrity

Milica Ševkušić
Institute of Technical Sciences of SASA
Belgrade, Serbia
EIFL Open Access Programme Coordinator in Serbia

7 April 2021
Compliance with ethical and professional principles, standards and practices by individuals or institutions in education, research and scholarship.

Content outline
Audience

- Researchers
- Students
- Researchers professionally involved in publishing (as editors, editorial board members, peer-reviewers)
Context

Define a broader context. Academic integrity is not only about writing. Principles of academic integrity apply to the whole research cycle and to all participants in research.

- Social responsibility
- Responsible Research and Innovation
- Open Science
DEFINING THE KEY CONCEPTS
OUTLINING THE CONTEXT

GOOD PRACTICE THROUGHOUT THE RESEARCH CYCLE

MISCONDUCT THROUGHOUT THE RESEARCH CYCLE

CONSEQUENCES OF UNETHICAL PRACTICES & FIGHTING MISCONDUCT

Open Science

Responsible Research and Innovation

Copyright and licensing

Reference managers

Information retrieval & literature search

GOOD PRACTICE: WRITING

MISCONDUCT: PLAGIARISM

Research Data Management

Responsible Research and Innovation

Open Science

Responsible Research and Innovation

Modular & extensible
Content: Definitions

Principles of academic integrity
honesty, accountability, professionalism, and stewardship (Singapore Statement on Research Integrity, 2010)

Misconduct
“Any action or attempted action that undermines academic integrity and may result in an unfair academic advantage or disadvantage for any member of the academic community or wider society.” (‘Glossary for Academic Integrity’)

Questionable research practices (QRP)
Not responsible research, but not misconduct (autoship issues, conflict of interest, selective reporting, lack of transparency, etc. (‘Questionable Research Practices: Definition, Detect, and Recommendations for Better Practices’. Replicability-Index, 24 January 2015)

* Instead of misconduct and QRP, we may speak about unethical practices.
Content: Legal framework

- Code of ethics (values and general principles)
- Codes of conduct (norms, rules, responsibilities, proper practices)
- Codes of practice and procedure
- Policies (statement of intent, general concepts, responsibilities)
- Rules on procedures
- Copyright legislation and other relevant laws

A very brief overview of relevant documents with links for further reading
Content: Topics

Good practice first!

Data collection

Include hints on checking the validity of sources and identifying unreliable information and fake news.

General audience: a brief explanation with a 1–2 easily understandable examples.

Discipline-specific audience: more detailed explanations (librarian as a trainer).

Recommended: additional training in collaboration with experts in the field (librarian as a facilitator).

Data interpretation

More detailed. Strong focus on good practice.

Writing
Writing

- Encouraging students/researchers to develop writing skills (logical structure, clarity, coherent style, foreign language proficiency)
- Crediting sources (when to cite?)
- Which sources are relevant (what to cite?)
- Checking sources to be cited:
  - Identifying retracted publications (Retractions Database, Zotero feature)
  - Identifying disputed publications (post-publication peer-review platforms, esp. Pub-Peer)

A complex issue, since learning outcomes depend on students’ ability to think critically, the overall disciplinary knowledge, linguistic proficiency... New approaches required.

Required: hands-on training

Recommended: additional training on literature search, finding data, information literacy
Writing

- Quotation
- Citations
- References
- Citation styles
- Crediting images
- Finding images under free licenses
- Obtaining permission to reuse images

**Required:** additional hands-on training

**Recommended:** training on reference managers (Zotero, Mendeley, etc.)

**Required:** additional training on copyright, licensing, reuse permissions, RightsLink, finding images under free licenses (Google Image Search, Wikimedia Commons, Creative Commons Search)

**Recommended:** one-on-one assistance
Content: Topics

Then misconduct!

Falsification

Fabrication

Questionable research practices

Plagiarism

**General audience**: a brief explanation with a 1–2 easily understandable examples. Highlight misconduct types that are particularly frequent in your community.

**Discipline-specific audience**: more detailed explanations (librarian as a trainer).

*Recommended*: additional training in collaboration with experts in the field (librarian as a facilitator).

More detailed.

*Recommended*: additional hands-on training and one-on-one assistance.
Plagiarism

- Definition
- Types of plagiarism (verbatim plagiarism, self-plagiarism, redundant publication, patchwork plagiarism, etc.)
- Misconceptions about plagiarism
- Paraphrasing (acceptable and unacceptable)
- Copyright concerns
- Operation and limitations of software tools used in plagiarism detection
- Automated similarity checking vs. plagiarism detection

- Avoid oversimplifications!
- Call things what they are: make it clear that a wide adoption does not make a practice legitimate.
- Examples adjusted to the audience.
- Explain the operation (and limitations) of professional similarity checking tools even if they are not available in your community.
Content: Consequences of unethical practices

- Crisis of peer-review
- Replication crisis
- Compromised trust in science

- Cite and explain a few striking examples,
- A good starting point for a follow-up discussion and training on Responsible Research and Innovation and Open Science,
Content: Actions against misconduct

- Reporting misconduct
- Investigation
- Sanctions
- Legal action
- Public discussion
- Developing methods for misconduct detection

- Mention rules and procedures in place.
- Cite notable examples of punished misconduct.
- Explain the complexity of whistleblowing.
- Explain the role of post-publication peer-review platforms.
- A good starting point for a follow-up discussion.
Training tips: methods, formats, tools
Modularity and scalability

- The same structure can be adjusted to various formats (one-time presentation, a course, individual consultations) and technical resources.
- The scope can be expanded by including new topics.
- Various approaches (lectures, hands-on sessions, homework assignments) and media (videos, podcasts) can be combined.
- The concept can be translated into an online environment.

Requirement: The trainer must have a comprehensive understanding of the research cycle.
If you have resources...

- Use various (all available!) media (videos, podcasts, live online sessions, in-person training).
- Engage professional designers, filmmakers, etc.
- Design a (certified) course.
- Involve experts, university professors, senior researchers to develop discipline specific training.
- Focus on developing critical thinking.
- Support hands-on training.
- Provide individual consultations.
- Design a social media campaign (sharing tips, useful readings, and resources).

#AcademicIntegrity
My approach

- Extremely user-oriented.
- Low or zero budget training models relying on crowdsourcing.
- Training adjusted to minimal technical requirements.
- Encouraging feedback during and after training.
- Improving the training concept based on participants’ response and feedback.
- Preference for semi-structured conversation over conventional tasks, quizzes, etc.
- Preference for real-life examples.
- Presentations designed to be reusable by colleagues.
- Sharing training materials (http://www.itn.sanu.ac.rs/sekcija/index.php/edukacija).
- Reluctant when it comes to (pre)recorded sessions 😞
## Formats

<table>
<thead>
<tr>
<th>Format</th>
<th>Methods</th>
<th>Topics</th>
</tr>
</thead>
</table>
| **Lecture (60 min, 90 min, 120 min)**            | ● Intro: an icebreaker task or a brief informal conversation about the previous experience with this type of training  
● Verbal presentation + PowerPoint; a polemic tone; with many examples.  
● The participants are free to interrupt and ask any questions they may have.  
● Questions to the participants after each subsection.  
● Q&A                                                    | Full range                   |
| **Semi-structured conversation in a very small group or one-on-one** | ● Verbal presentation  
● Q&A  
● In-depth analysis of relevant examples                  | Usually selected only, but sometimes the full range                   |
| **Individual consultations**                    | ● Informal conversation to establish what the user doesn't know  
● Q&A  
● In-depth analysis of relevant examples  
● Practical assistance with specific issues               | Selected                      |
Tips

- Be flexible.
- Have an alternative plan if something goes wrong.
- Training in the local language is usually more efficient.
- Prepare materials in the local language.
- Avoid recycled examples (find your own in the literature, blogs, social media).
- Adjust content to the audience.
- Use less complex examples when working with students but avoid oversimplification.
- Share links in the chat during online sessions.
Tricky issues

- Bias among the audience in support of widely accepted bad practice (e.g. tolerance to self-plagiarism, problematic citation practices).
- Permitted similarity percentage?
- Simple examples may create a wrong impression that everything is clear and understood (while it’s not).
Presentation

- Detailed and informative presentation that can be used in its own right, even if other materials (guides, videos are already available on the web).
- In case you plan a live demo, cover the whole procedure in the presentation using screenshots (useful when there is no internet connection during in-person training, or the participants are using small screen devices).
- Provide further reading and interactive links to support the main ideas.
- Convert it to PDF and optimize for fast web viewing.
- Make it available as soon as possible – preferably immediately after the training; sometimes, it is good to share it in advance.
- If you do not have a dedicated website, create a Zenodo community and upload your materials there. This is a good idea even if you have a website.
Interaction

- Encourage questions (both during and after training)
- Tasks and assignments
- Always provide feedback

Online environment:

- Polls
- Collaborative notes on Google Drive 👍
- Jamboard or other whiteboard applications (more engaging and visually appealing but outputs can only be exported as images)
<table>
<thead>
<tr>
<th>Exercises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pick up a researcher found proven of misconduct (but not too famous) and ask participants to find information about him/her in various sources of information</td>
</tr>
<tr>
<td>a) participants work individually and it is up to them to choose where to search for information;</td>
</tr>
<tr>
<td>b) participants work in three groups instructed to search scholarly databases only, social media only, and anywhere they want.</td>
</tr>
<tr>
<td>Checking information about journals, publishers or companies using Internet search engines, Who.is and other sources (e.g. business registers)</td>
</tr>
<tr>
<td>Exercises</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Take a short excerpt from a scholarly publication, remove citations, and ask the participants to:</td>
</tr>
<tr>
<td>● identify places in the text where citations are needed;</td>
</tr>
<tr>
<td>● indicate the kind of sources they would cite.</td>
</tr>
<tr>
<td>Exercises</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Finding reusable images under free licenses using Google Image Search, Wikimedia Commons, Creative Commons Search.</td>
</tr>
<tr>
<td>Exercises</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Analyzing proven examples of plagiarism in a group.</td>
</tr>
<tr>
<td>Exercises</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Ask the participants to trace back a selected piece of fake news using Internet search engines</td>
</tr>
<tr>
<td>Exercises</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Tracing back images using Google Image Search (esp. In the context of fake news).</td>
</tr>
<tr>
<td>Exercises</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Find a paper containing or reflecting elements of questionable research practices and ask the participants to read it before the training session; analyze the paper in a group.</td>
</tr>
<tr>
<td>(Advanced, discipline-specific, to be done in collaboration with an expert)</td>
</tr>
</tbody>
</table>
If you like games

Academic Integrity Board Game

Board game

Online game, in PowerPoint, under the CC BY-NC license


[https://ideas.repec.org/h/elg/eechap/19100_7.html](https://ideas.repec.org/h/elg/eechap/19100_7.html).
Working in an online environment

- Depends on the network speed and stability;
- the performance of the participant’s devices can be a limitation, just like small screen sizes;
- some participants may not have an appropriate working environment ...
  - but generally not bad at all!

My worst nightmares:
- full screen mode in Zoom
- talking to the silence when everybody is muted 😱
Plans for the future

- Introducing multimedia;
- Building a more complex structure;
- Exploring new tools and formats;
- Designing a genuinely online training concept;
- Crowdsourced shared bibliographies...feel free to use and contribute: https://www.zotero.org/groups/2888253/academicresearch_integrity
Questions?

scmilica@gmail.com
@lessormore4