MSc Life Sciences

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Data and Ethics Handbook - AS22

Version 2.1

Learning Objectives

As part of the course "Data and Ethics" students will be establishing a Data & Ethics Handbook.

The main objective of this assignment is to broaden the understanding of the topic Data and Ethics in relation to the content of the module. The following main sections / key perspectives will have to be covered in the Handbook (the numbering refers to the respective lecture resp. coaching session):

Section 1: Relevance Description

- 1. Reflect on the overall relevance of being aware of cybersecurity aspects that were introduced to you through the digital escape room.¹
- 2. Report in brief about your activities regarding the personal information security input (teaching and coaching session). It could include snapshots, lessons learned, or changes in your setup and behavior.²
- 3. Report in brief about the relevance of information security from an organizational perspective. It could include why information security in modern times is essential for organizations to manage, with references to a particular industry or frame-work.³

Section 2: Information Security Policy⁴

4. Create an information security policy that is related to your workplace. The outline of the policy will be given to you as a guidline for what you will have to come up with. Protecting confidential information is everyone's responsibility. Personal information is used everywhere at work and in your private life. Whether you work with student, financial, employment, research, or donor information, the first step is to understand how your confidential information is classified to learn about the protections at each data classification level. More stringent protections will accompany communication with a higher risk classification. In an information security policy, these settings will be created. The structure for the information security policy is presented in the coaching session 4.

Section 3: Data Management Plan⁵

5. A data management plan, or DMP, is a formal document that outlines what you will do with your data during and after a research project. Many funding agencies, especially government funding sources, require a DMP as part of their application processes. You will create a DMP that is focused on touching all relevant aspects that are included in a DMP. For this purpose it is suggested you use dmptool.org and evaluate including ethical considerations. All elements will be introduced during the input session. The output is part of the grading. A detailed view on content and assessment will be provided for each of the sections, and updated on Moodle.

¹ See Coaching Session 0 (CS0)

² See Input Session 1 (IS1) and CS1

³ See IS2 and CS2

⁴ See IS3 and CS3

⁵ see IS4 and CS4

Section 4: FAIR Guiding Principles

6. With the FAIR Data principles gaining momentum, many people want to learn more about FAIR Data. Distinct from peer initiatives that focus on the human scholar, the FAIR Principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its reuse by individuals. For section 4, you will have to fill in the FAIR Data Stewardship Plan Template for Organizations and Institutions. The template is a tool for planning organizational and institutional change that leads to implementation of FAIR principles for local assets and services. While the template can be used once by a single person or a team, it is meant to be a "living document" that is used iteratively and for on-going program planning and policy development.

Section 5: Data Ethics Canvas

7. Upcoming

Section 6: Conclusion and Reflection

- 8. Reflection Content
- 9. Reflection Coaching Sessions
- 10. Reflection Personal view

Guidelines

The assignment counts for <u>80%</u> of the overall grade. It is an **individual** work which will be assessed at the end of the semester.

- The handbook consists out of the <u>five</u> main sections as described in the "Learning Objectives" above <u>and</u> a "Conclusion and Reflection" section as well as "References" and optionally an "Appendix".
- A template with a chapter structure of the handbook is provided seprately.
- Each student has to upload a PDF document with the final version. The expected size is indicated in the respective chapter in the handbook template, plus the cover sheet, Table of Contents (ToC), Management Summary, Conclusion and Reflection, and the Bibliography (as an option: max. 2000 words for an appendix).
- The deadline for the final version is deposited on Moodle (submission area).
- For the filename format: please start the name of the uploaded document with your last name! (Lastname_Firstname_ Assignment-1).

Further notes:

- a) The target group for your handbook are the decision makers from your selected use case. This means, you decide about your target group and you tailor your handbook according to the selected target group and use case. Hence, a use case could be a company in an individual case. Prepare a useful conclusion about the relevance of "data and Ethics" and the selected perspectives (from the module), e.g., exemplary events, relevant frameworks, , consulting perspectives, etc.
- b) Your target group trusts you to be able to select relevant topics and summarize them with a view of the essentials for this specific company (you will choose). Besides, they expect a clear, descriptive, and easily understandable handbook in short, professional work!

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- c) A template for the handbook will be provided via Moodle an idea of how the final handbook should look⁶.
- d) The assessment template for the handbook you will find separately on moodle.
- e) As citation style, APA or IEEE is obligatory for the work. Course work can be referenced either directly from sources when they are indicated in the slides, otherwise referencing the lecturer is sufficient.

⁶ You can change the style but stick to the given chapters; the chapters are orderd in the sequence of the course sections.