Algorithmic Fairness, Accountability and Ethics, Spring 2023, IT University of Copenhagen

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General Exam Guidlines

- **Hand-in**: May 19th, 2023 at 23:59
- **Groups**: 2-3 people. *Only one member of the group submits the exam project*.
- **What to submit**: (1) Max 10 pages report (find template on LearnIT, under the Exam Section), (2) Jupyter notebook (well-curated and that runs without errors), (3) Statement of contributions.
- **Mandatory Assignment(s)**: Submit your mandatory assignment(s) 1 or 2 if you haven't submitted them during the course or they were not approved. Submit them individually (even if you have worked in groups).

Styling Requirements for the Report

We setup the LaTeX and Word templates accoring to these requirements:

1. **Citation Style:** Vancouver Style bibliography. The LaTeX template is already set up with the Vancouver Style. If you work in Word, you have to make sure you use the correct citation style: you can extract Vancouver Style citations using Google Scholar (here is the guide).
2. **Font**: Times New Roman. 12pt font size for body, 1.5pt line spacing, and 2cm margins.

General Guidlines for the Report

Depending on your chosen project, not all questions are relevant/can be addressed. This is not necessarily an exhaustive list of questions: an important question relevant for your project might not be listed. Consider the feedback you got about your project (i.e. Mandatory Assignment 3/Group Project A) in this regard. **Everybody needs to address the ethics/philosophy part (point 8 below)**

1. Description of the chosen problem.
    - Do you have the training data?
    - Do you have the algorithm?
    - Do you have the prediction?
    - What is the stated purpose of the algorithm? Does it do so?

2. Dataset analysis: What are the characteristics of the dataset? Are there biases? What do you expect, given this analysis? Are there biases in the data (train)? Are there biases in the prediction?
3. Is this algorithm fair? Which notion(s) did you use and why?
4. Can you explain the result of the algorithm? How?
5. You can use the framework presented in the Model Cards paper (or Data Playbook).
6. Can you debias the model and/or the data?
7. How does fairness improve after debiasing?
8. Ethics and philosophy (considerations on these two aspects):

    - Different ethical approaches and what could be said about dataset biases from the point of view of the theories that Pawel described during the lectures.
    - The switch from the paradigm of Good Old Fashioned Intelligence to modern AI, especially the arguments as to why datasets are used to solve specific problems. Were these problems unsolvable using traditional, algorithmic AI, or is it just a pragmatic choice (for example, these solutions are faster)?

Before Submission

1. **Instructions**:

    - Check that you are submitting to the correct course,
    - Add your exam submission before the due date,
    - Only one member of the group submits the exam project,
    - Do not submit anything if you are submitting a blank report/sheet,
    - References are not included as a part of the 10 page requirement.

2. **Advice when uploading large files**:

    - We recommend upload of very large files from IT-U (use wired network for best performance),
    - Compress and upload large files separately. And do it early - if ready!

3. **Additional guidelines**:

    - Link to ITU Student - Guidelines for submission of written work.