

# Teaching ethics in a new data science course

David Sterratt

8 February 2021

# Context



THE UNIVERSITY *of* EDINBURGH  
**informatics**

**F****O****U****N****D****A****T****I****O****N****S**  
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- ▶ Push to embed ethics in the curriculum

## Intended learning outcomes

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5. Complete a data science project and write a report describing the question, methods, and results. (**Data science project**)

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  - ▶ Randomized studies, hypothesis testing

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- ▶ Reading and critique of data science articles



How it started. . .



... how it's going



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- ▶ S2 week 6 lab: Legal/ethical web scraping

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  4. Each group presents at 1-hour workshop session in Collaborate, with short time for discussion after each presentation.

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- ▶ However, format did not lead to much discussion in the workshop in some groups - though there was probably discussion beforehand between students

## Student response - positive

- ▶ *Data Ethics reading is awesome! I suppose some here may be uninterested in reading about ethics and would way rather focus on the technical parts of Data Science, but after reading the first chapter, I wanted to let you guys know that the reading is very interesting and relevant. As someone with a deep interest in deep learning, a lot of these ethical issues are directly applicable and solving them often involves rather interesting technical solutions, e.g. [...] Even if you do not find ethics interesting, you surely want to understand your models/data, and considering ethics is a part of this process."*  
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- ▶ *I think it is interesting to engage in critical thinking, and sometimes combine it with code.* (S1 mid-semester survey)
- ▶ *"I wish there was more about ethics"* (Course evaluation questionnaire)

## Extremely negative student response (on Piazza)

*I object to the political bias of this course*

*I thought I'd signed up for a class on Data Science, not Gender Studies or some other left-wing nonsense.*

*Just imagine if the data sets you'd chosen were just as heavily promoting pro-life arguments or insistence on religious education, the dangers of illegal immigration or some other conservative talking point? [...]*

*I did a science degree to get away from the politics constantly being rammed down my throat on a daily basis, and I feel pretty pissed off that you're not only taking every opportunity you can to try to indoctrinate me into this Marxist cult [...]*

*You should remove all politically motivated content from this course as a matter of priority. The University of Edinburgh cannot make any true claim to "diversity" until it removes this political bias from courses that should be apolitical.*

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- ▶ Improve the set-up of discussion in the data ethics workshop
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- ▶ More discussions in Q&A - perhaps asking students to apply ethical principles to news stories
- ▶ Some student feedback has suggested “harder” topics should be introduced earlier; try to stick with ethics early

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