

MET4 2.0: GOING DIGITAL IN THE LONG RUN

Håkon Otneim & Geir Drage Berentsen

MET4: Empirical Methods

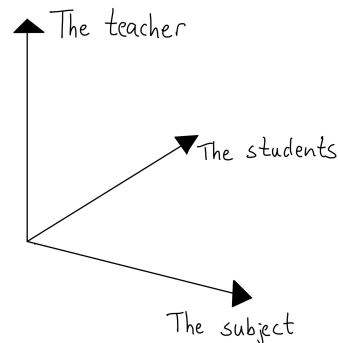
- Mandatory course in the bachelor programme at NHH.
- A course in applied statistics and basic econometrics.
- Central topics are statistical inference, regression analysis, time series, and we have recently added basic machine learning as a natural next step from logistic regression.
- Student evaluations indicate that this is regarded as a somewhat difficult and demanding course, but also useful and rewarding in the end.
- Offered **every semester!**

Historic background

- Håkon joined NHH in 2016 as a postdoc, and gave MET4 for the first time in the spring of 2017.
- Evelina gave the course in English for the first time in the fall of 2017.
- The original crew: (Håkon, Evelina) + Ole-Petter $\leadsto$  in 2018
- Then (Håkon, Evelina) + Knut Anders $\leadsto$  in 2019
- Then the fall semester was switched to Norwegian: Håkon + Geir = .
- From 2020, we had to give MET4 twice a year.
- Håkon and Geir were both hired permanently in early 2020, so this is most likely a "problem" that is not going away anytime soon!

The case against plenary lectures

- We believe that some sort of "teaching strategy objective function" f exists at all points in the following space:



- We must optimize the teaching strategy in the point $x_0 = (\text{MET4}, \text{Second/third year NHH students}, \{\text{Håkon}, \text{Geir}\})$.
- We believe that

$$\text{Plenary lectures} \notin \arg \max \left\{ f(\text{Teaching strategy}; x_0) \right\}.$$

A plan and a timeline

- By the late spring and early fall of 2019, we had a very traditional course.
- We looked at all elements of the course, and planned out the following facelift:
 - New lecture notes. ☒ **Done spring 2019**
 - New programming labs ☒ **Done fall 2019**
 - Revision of the curriculum ☒ **Done spring 2020**
 - Pre-recorded video lectures ☒ **Done fall 2020**
 - External course web-site ☒ **Done spring 2021**
 - New problem sets ...**in progress, done fall 2021?**

The virus arrives

- In other words; we were in the middle of a complete digital transformation of our course in the spring of 2020.
- In fact; we were ready to roll out a set of pilot videos to replace the final lectures in medio March.
- *The timing could not have been better.*
- The only thing we had to do in order to deal with the first lockdown was to move discussions and Q&A sessions online.
- We quickly decided that this was our signal to move forward with our plan, and fully replace the plenary lectures with pre-recorded videos.