The Effects of Influencer Advertising Disclosure Regulations: Evidence from Instagram

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This Project

- Research Question: **What are the effects of mandatory advertising disclosure regulations?**
  - On amount of advertising/sponsored content and user engagement in online platforms
  - An open empirical question with conflicting theoretical predictions (Mitchell 2020)

- We collect data on 100 most popular *local* Instagram influencers from Germany and Spain
  - Germany had mandatory disclosure regulations in late 2016
  - Regulation focused on including words that indicate sponsored posts ("#ad," "#werbung")

- For each influencer, observe full history of posts (# likes, # comments, # followers, post text)

- Difference-in-differences identification strategy, controlling for influencer and country characteristics

Defining Sponsored Posts

- Key empirical challenge is identifying **sponsored** posts
  - We know what **sponsored** and **disclosed** posts look like (#ad, #werbung)
  - Less sure about what **sponsored** and **non-disclosed** posts look like
- Two ways of uncovering these:
  1. Manual definition using keywords
     - i.e., "code," links to websites, brand refs, "buy this!" etc.
     - Drawbacks - have to pick keywords ourselves
  2. Supervised ML definition
     - Train an algorithm (Naive Bayes) to look for words associated with disclosure
     - Training data - Germany after regulation
     - Project on pre-regulation Germany and Spain
     - Drawbacks - overfitting, imperfect disclosure and translation
- Comparison: Both catch around 70% of disclosed posts but ML is more "conservative"

Main Results

- DiD estimates show that sponsored content increases in Germany after regulation
  - Sponsored post share increases by 7% (relative to a 19% baseline)
- Disclosure of sponsored content also increases but is far from perfect
- The number of followers per influencer falls in Germany
- Engagement with posts in Germany falls, suggesting growing dislike of non-disclosed sponsored content

Influencer-Month Share of Posts Disclosed | Naive Bayes Predicted Mean Sponsored Share

Germany — Spain

New regulations in Nov 2016 (1st vertical line). First fines in mid 2017 (2nd vertical line).