«**Critical Social Media Analysis using Mixed Methods**»
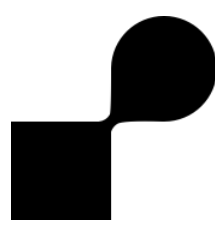
Analyzing social debate and controversy on social media platforms - how and why?

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Session II, 12 Nov 2020

Recap last session

- Thematic focus:
  controversy in online debates around climate change

- Methods:
  - quantitative methods,
    repurposed for qualitative / interpretative analysis
  - engaging in a critical technical practice (Agre 1997)

- Organization

- Assignments and participation

Seminar progress / today

Seminar

Theory / Methodology
Critical Data Science

| Research questions	Collection	Exploration	Machine Learning		Paper writing
			language models / clustering / visualization		
				Interpretative analysis / **Focused analysis and selected aspects**	
online videos + user debates **Material**	digital traces of social interaction **Data**		cleaned datasets, categorized data **Data aggregation**	categories and theoretical elements **Theory building**	

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Seminar progress / today

Seminar

| Theory / Methodology Critical Data Science | | | | | |

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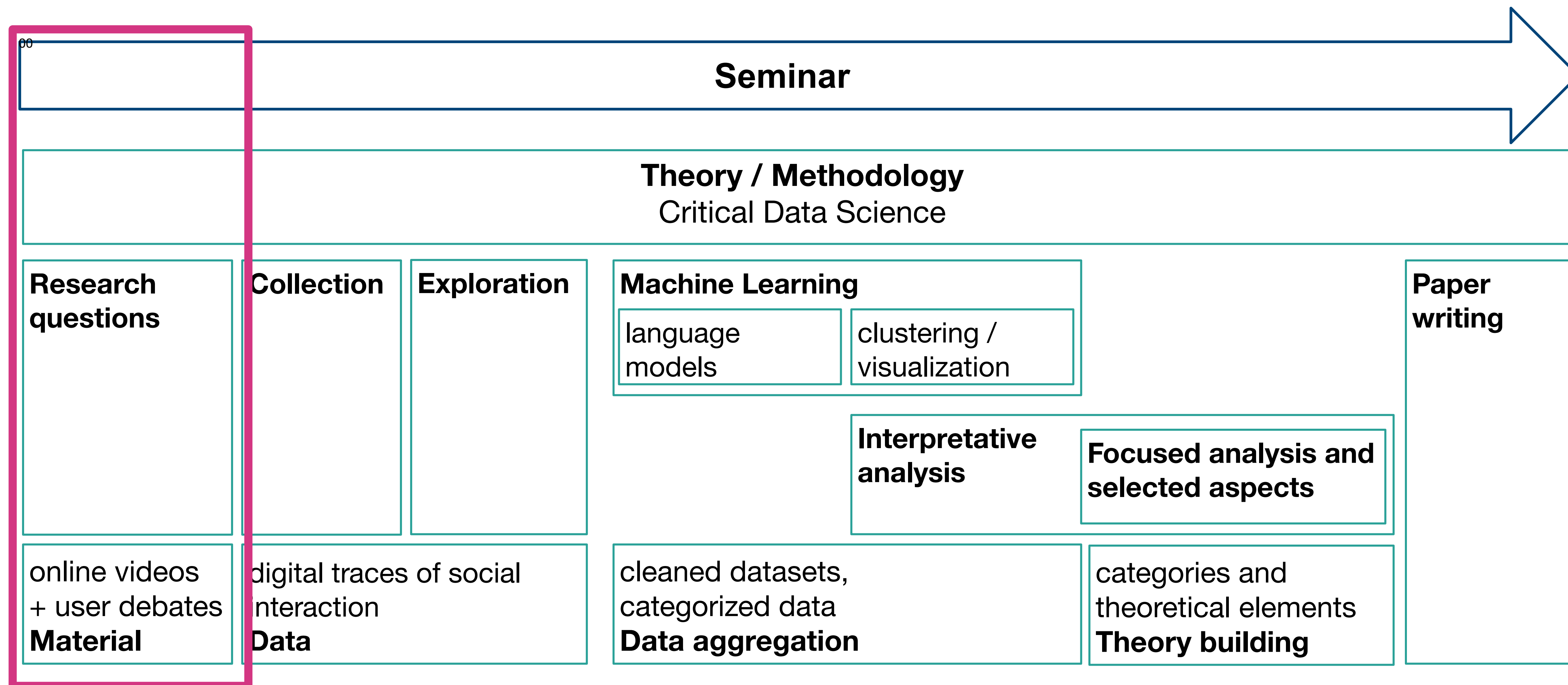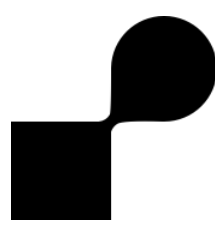
Reconsidering the assignment
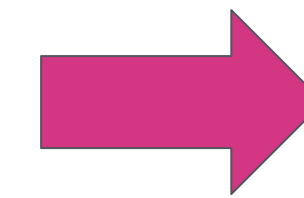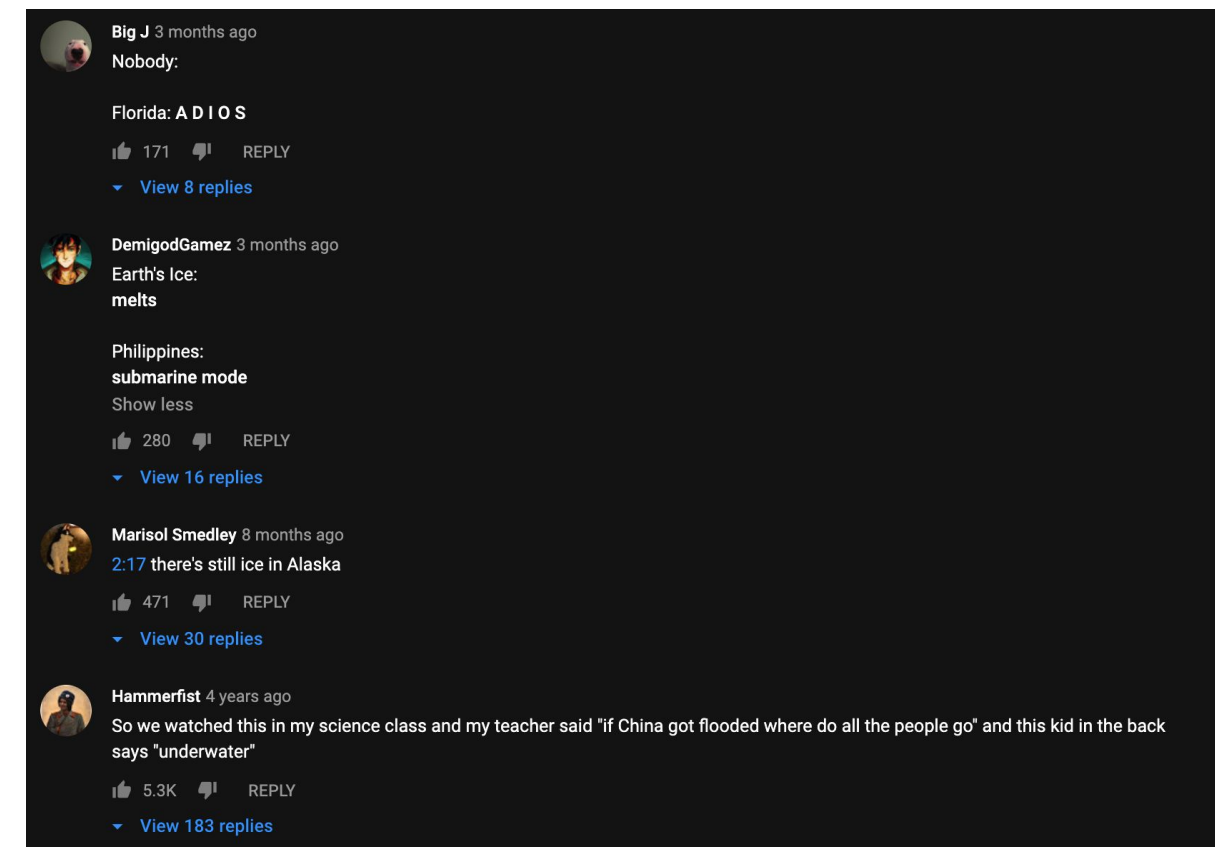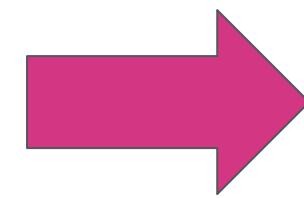
What have we analyzed here?
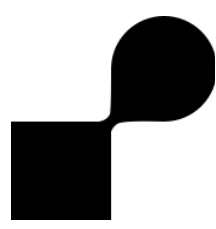
What is our analytical category?

1. What does social media data represent?

   Digital **traces** of human activity in context (Hepp et al. 2018)

2. What social categories can we derive from social media data?

From your commentaries:

- "the main topics of discussion were" (discourse analysis, topic modeling - topics)

- "people are angry" (qualitative sentiment analysis - emotions)

- "people are joking about" (linguistics - tone, rhetorics)

- "blaming" (Grounded Theory - communicative practices)

- "a thread of x to Y comments was formed" (media-specific analysis - media structures)

- "people say they are not happy with" (opinion mining - opinions)

- "people who don't believe in climate change" (user profiling - users)

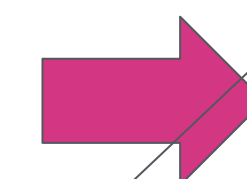- "I agree on" (ethnographic reflection - position of the researcher)

Example: media practices on YouTube

Practices can be understood as temporally and spatially sequenced, socially typified as well as physically and materially anchored patterns of action (Pentzold 2015).
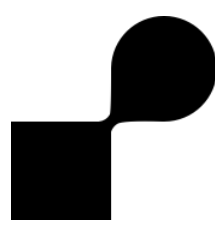
Media practices describe what people do with and through media (Couldry 2004).
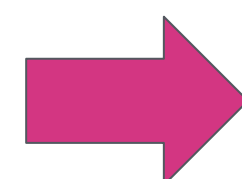
praising

envisioning further

trolling

humorizing

discarding

expressing concern

politicising

proposing solutions

Exercise (breakout groups)

Based on the online research carried out for the assignment of this week, engage in the following group exercise in a breakout session:

- We will split into groups
- Briefly introduce yourselves to the others
- Choose a note taker and document in GSlides (link to template provided)

  Discuss the following questions and document the debate:

  - What are the dominant practices of users interacting with each other?
  - What are practices that specifically seem to trigger and fuel controversy?
  - Identify one surprising aspect common to your material

- Identify one/two person(s) who present(s) the aspect in the plenum (1 - 2 min.)
- Time for the discussion: 25 minutes (meeting again in plenum afterwards)
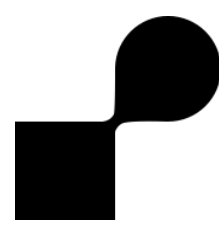
Exercise (presentation)

Mapping controversy I

- **What is controversy?**

  "Controversy is a state of prolonged public dispute or debate, usually concerning a matter of conflicting opinion or point of view."

  Wikipedia, The Free Encyclopedia, s.v. "Controversy," (accessed Nov 11, 2020), https://en.wikipedia.org/wiki/Controversy#:~:text=Controversy%20is%20a%20state%20of,turned%20in%20an%20opposite%20direction%22.

- **Mapping controversy**
  - Investigative approach developed in the interdisciplinary field of Science & Technology Studies
  - Study of public disputes about science and technology, and the interaction between science, innovation, and society
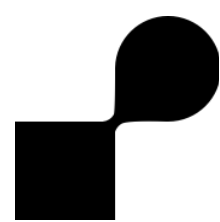
Mapping controversy II

Relevant paper

"Mapping Controversies with Social Media: The Case for Symmetry" by Noortje Marres and David Moats (2015)

Symmetry principle in controversy mapping

- On a methodical level, set aside 'true' or 'false' and treat all positions equally viable (Bloor 1982)
  - interested in socio-political dimension of knowledge claims
  - study knowledge content **and** political positioning
- Study the actors' competing attempts to define the controversy (Latour 1987)
- Map the issues (Rogers & Marres 2000)
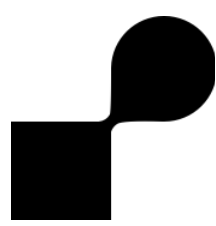 - Trace how issues evolve in the media and the web

Social media particularly promising for controversy analysis

- mainstreaming of social media in / across social, professional and public life (Gerlitz & Lury 2014)
  - extending empirical relevance as setting for societal controversies.
- available, richly structured data

Mapping controversy III

Three ways of Analyzing controversies with Social Media

Precautionary

- focus on content / topics
- Problem of platform bias
- "clean the data" from platform artefacts

Affirmative

- focus on media-technological aspects and platform specificities
- influences of the setting on topics (e.g. studying country-specificity of search results, bot behaviour)

Empiricist

- analyze both - issue dynamics and media-technological specificities - and their evolving relationship

(Marres and Moats 2015)

Hashtag profile of "privacy" with (above) and without (below) news postings

Assignments for next week

1. **Read the article** "Mapping Controversies with Social Media: The Case for Symmetry"
   by Noortje Marres and David Moats

   (Open Access Link on Github Seminar Plan + Doc in Whiteboard)

2. Drawing from your material in assignment 1,
   - describe **practices fueling controversy** in the debate and experiment with **different modes of enquiry** (precautionary, affirmative, empiricist) according to (Marres and Moats 2015).
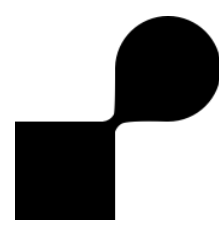
   The assignment can either be tackled alone or as a team of two.
   Alone: 150 words, Group of two: 250 - 300 words (as reply to Github issue 'Session 3 assignments)

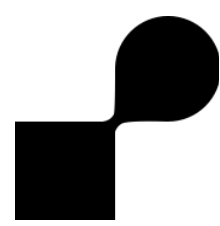   If you prefer to work with tabular data, download your user debate with:
   https://tools.digitalmethods.net/netvizz/youtube/mod_video_info.php
   Please don't share this data further.

What's up next session?

Data collection!

Sources

Agre, Philip. "Toward a Critical Technical Practice: Lessons Learned in Trying to Reform AI." Social Science, Technical Systems and
Cooperative Work: Beyond the Great Divide. Erlbaum, 1997.

Couldry, Nick. "Theorising Media as Practice." Social Semiotics 14, no. 2 (2004): 115–132.

Gerlitz, Carolin, and Celia Lury. "Social Media and Self-Evaluating Assemblages: On Numbers, Orderings and Values." Distinktion: Journal of
Social Theory 15, no. 2 (May 4, 2014): 174–88. https://doi.org/10.1080/1600910X.2014.920267.

Latour, Bruno. Science in Action: How to Follow Scientists and Engineers through Society. Cambridge, Mass.: Harvard University Press, 1987.

Marres, Noortje, and David Moats. "Mapping Controversies with Social Media: The Case for Symmetry." Social Media + Society 1, no. 2 (July
1, 2015): 2056305115604176. https://doi.org/10.1177/2056305115604176.

Pentzold, Christian. "Praxistheoretische Prinzipien, Traditionen und Perspektiven kulturalistischer Kommunikations- und Medienforschung."
Medien & Kommunikationswissenschaft 63, no. 2 (2015): 229–45. https://doi.org/10.5771/1615-634x-2015-2-229.

Rogers, Richard, and Noortje Marres. "Landscaping Climate Change: A Mapping Technique for Understanding Science and Technology
Debates on the World Wide Web." Public Understanding of Science 9, no. 2 (April 2000): 141–63.
https://doi.org/10.1088/0963-6625/9/2/304.

Wikipedia, The Free Encyclopedia, s.v. "Controversy," (accessed Nov 11, 2020),
https://en.wikipedia.org/wiki/Controversy#:~:text=Controversy%20is%20a%20state%20of,turned%20in%20an%20opposite%20direction%22
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