

# PWB-ST-VS: Misinformation, disinformation and other digital fakery Syllabus

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# 1 Course description:

Threats of misinformation, disinformation, and other digital fakery are prominent in academic and public discourse. News media feature examples of digital disinformation prominently. Politicians accuse opponents regularly of slinging disinformation. Regulators justify initiatives of increasing corporate and state control over digital communication environments with threats of disinformation to democracies. But responsible regulation means establishing a balance between the risks of disinformation and the risks of regulatory interventions. This asks for a solid, empirically grounded understanding of the reach and effects of digital disinformation and underlying mechanisms. This raises the importance for the social sciences to reliably conceptualize, measure, and analyze the nature, spread, and impact of disinformation in digital communication environments. This course provides students with a solid understanding of core concepts related to misinformation, disinformation, and other digital fakery and supports them in the independent development of related research projects.

Please address your questions regarding the course to Ms. Katharina Kachelmann (katharina.kachelmann@uni-bamberg.de).

# Learning objectives:

- Independent development and execution of an empirical research project;
- Independent development of research question, hypotheses, and research design on the basis of current theoretical discussions in the field;
- Independent execution of illustrative empirical analysis demonstrating the strength of the underlying research design.

# 2 Course requirements

# 2.1 Regular and active participation

The course features the discussion of the required readings. To benefit, students are expected to read the texts listed as required readings before each session and actively participate in the discussion for each session. You will find it useful to keep notes.

#### Background Readings:

• On taking notes: Ahrens, S. (2022). How to take smart notes: One simple technique to boost writing, learning and thinking (2nd ed.). (Original work published 2017).

In preparing the texts for each session, please use the following guiding questions where appropriate:

- What are the research questions?
- What hypotheses are advanced?
- What mechanism do the authors suppose contributes to the observed/explained outcome?

- What kind of evidence is presented?
- What are the findings?
- How convincing do you find the presented argument (e.g. How do the presented arguments/findings connect/contradict other findings? How does this connect with your own observations?)?
- Are the alternative approaches you would choose to pursue the presented question?

If you are unclear about the terms used above, check out the following background readings:

#### Background Readings:

- Gerring, J. (2012). Social science methodology: A unified framework (2nd ed.). Cambridge University Press. https://doi.org/10.1017/CBO9781139022224 (Original work published 2001).
- Howard, C. (2017). Thinking like a political scientist: A practical guide to research methods. The University of Chicago Press.

# 2.2 Research project

The seminar is providing students a practical introduction to the research process. Students will be asked to develop a research project in small teams focusing on an issue related to the topics discussed during the course. This can be a project focusing on an original question or a replication of papers discussed during the seminar. Students will receive continuous feedback on their projects and their progress.

Students will be asked to present their progress during sessions focusing on

- Phenomenon of interest,
- Research question and hypotheses,
- Research design,
- Illustrative empirical analysis.

Please keep the following considerations in mind in preparing your presentation:

- Please plan your presentation to take about 5-10 minutes;
- Please prepare a slide deck with a presentation program of your choice (except for Prezi);
- Presentations are a necessary task for passing the course but will not be graded.

# 2.3 Term paper

Participants will be asked to hand in a term paper documenting their research project. Please adhere to the following guidelines:

- Style requirements:
  - Font: Times New Roman, 12pt;
  - Line separation: 1.5;
  - Page borders: 2.5 cm left and right, 2cm above and below;
  - Page set: Block;
  - The first line of each paragraph is indented;
- Citation Style: Please follow the citation convention of the American Political Science Review (APSR) available at https://www.apsanet.org/APSR-Submission-Guidelines, or you could simply use the reference style APA in the references manager of your choice;
- Cover page: University, department, course title, paper title, name, Matriknr., semester count, study program, and e-mail-address;
- Length: ca. 5000 words + /-10%
- Deadline: Please upload the paper up until September 30 electronically in the VC. The date is mandatory and can only be extended in case of officially certified illness;
- Use the following template for the filename "your last name-paper.pdf".
- The term paper will be graded.

#### Background Readings:

- Basbøll, T. (2018a). The paper. *Inframethodology*. https://blog.cbs.dk/inframethodology/?page\_id=614
- Becker, H. S. (2020). Writing for social scientists: How to start and finish your thesis, book, or article (3rd ed.). University of Chicago Press. (Original work published 1986).
- Gerring, J. (2012). Social science methodology: A unified framework (2nd ed.). Cambridge University Press. https://doi.org/10.1017/CBO9781139022224 (Original work published 2001).
- Howard, C. (2017). Thinking like a political scientist: A practical guide to research methods. The University of Chicago Press.

# 2.4 Policy on ChatGPT

By now, you have likely encountered accounts of ChatGPT's potential for assisting you in writing tasks. Perhaps you have even tried it out. This is excellent and highly recommended, as there is every reason to expect that your future life in work or research will involve working with AI-enabled assistants, whether for software development, data analysis, or managing mundane office tasks. Therefore, familiarizing yourself with these tools and learning about their strengths and weaknesses is crucial. However, as a student, certain uses may be more advisable than others.

Before you start using ChatGPT, consider what you might lose by relying on it. We assign research papers to help you practice specific tasks repeatedly throughout your studies, offering you the opportunity to learn and improve your skills. However, this will only happen if you actually *perform* the tasks and *do* the work. Relying on ChatGPT or other models too early in your education may prevent you from acquiring or refining these skills over time. At the same time, we can expect workflows in academia and industry to be shaped by collaboration between humans and AI-enabled systems, such as LLMs, sooner rather than later. Consequently, developing the necessary skills to use these models effectively is also essential.

One approach is to consider the skills or tasks you are expected to learn, perform, or improve with a given paper assignment. Challenge yourself to complete these tasks independently, write down your solutions, and then compare them with the output of your current AI-enabled model of choice or even competing models. By doing this, you can reflect on the accuracy of your work and the model's output, identify areas of improvement, and understand where the model's strengths and weaknesses lie. This process transforms LLMs into a supporting tool rather than a substitute, while also providing valuable insight into your own work.

Word to the wise: Do not, let me repeat, DO NOT use ChatGPT or other services built on Large Language Models to draft or write sentences and paragraphs in your paper. These sentences will sound plausible but more likely than not are cliché or downright false. Correcting these sentences or trying to develop your own argument independent of them will be more work than drafting them yourself. So do not make the mistake of imprisoning your thoughts or arguments in the probabilistic imitation of sentences expressing thought.

For transparency reasons, we ask students at the Chair for Political Science, esp. Digital Transformation to include a short disclaimer in their papers, indicating if and which AI model they used and for what tasks.

Possible tasks include:

- 1. Exploring a phenomenon, mechanism, or literature;
- 2. Finding a research question;
- 3. Developing theory-driven hypotheses;
- 4. Analyzing data;
- 5. Structuring the paper;
- 6. Editing.

Please document

- If and for what tasks you have used ChatGPT or comparable large language models (LLMs);
- How your work built upon the results provided by the model;
- List prompts used by you and responses in an online appendix.

Remember, you are solely responsible for the text you submit. Undocumented use of AI-enabled models, plagiarism, flaws in reasoning or analysis, and fabricated sources may result in significant grade reductions or even failure of the class. It does not matter whether these issues originated from you or the model – as the author, you are accountable for the strengths and weaknesses of your submitted work.

Be aware that when grading papers, we may place greater emphasis on aspects where models perform poorly and discount tasks where models excel.

#### Background Readings:

- Jungherr, A. (2023e). Using ChatGPT and other large language model (LLM) applications for academic paper assignments. SocArxiv. https://doi.org/10.31235/osf.io/d84q6
- Mollick, E. (2024). Co-intelligence: Living and working with AI. Portfolio/Penguin.

# 3 Course plan

Class will meet in person (F21/02.31) at the following dates and times:

Thursday 10:00–12:00 c.t.

- 3.1 Week 1: Introduction and Housekeeping (April 18)
- 3.2 Week 2: Truth and opinions in politics (April 25)
- 3.3 Week 3: What makes the contemporary public arena vulnerable? (May 2)
- 3.4 Week 4: No meeting (May 9)
- 3.5 Week 5: Sources of disinformation (May 16)
- 3.6 Week 6: Reach of disinformation (May 23)
- 3.7 Week 7: No meeting (May 30)
- 3.8 Week 8: Effects of disinformation (June 6)
- 3.9 Week 9: Phenomenon of interest (June 13)
- 3.10 Week 10: Research questions and hypotheses (June 20)
- 3.11 Week 11: Research design (June 27)
- 3.12 Week 12: Questions and feedback (July 4)
- 3.13 Week 13: Presentation of study prototype (July 11)
- 3.14 Week 14: Discussion and open questions (July 18)

# 3.1 Week 1: Introduction and Housekeeping (April 18)

#### Required Readings:

- Jungherr, A. (2024). Foundational questions for the regulation of digital disinformation. *Journal of Media Law*.
- Lecheler, S., & Egelhofer, J. L. (2022). Disinformation, misinformation, and fake news: Understanding the supply side. In J. Strömbäck, Å. Wikforss, K. Glüer, T. Lindholm, & H. Oscarsson (Eds.), *Knowledge resistance in high-choice information environments* (pp. 69–87). Routledge. https://doi.org/10.4324/9781003111474-4

#### Session Prep:

- Following Lecheler and Egelhofer (2022), what are misinformation?
- Following Lecheler and Egelhofer (2022), what are disinformation?
- Following Lecheler and Egelhofer (2022), what are fake news?
- How do we know?

# 3.2 Week 2: Truth and opinions in politics (April 25)

#### Required Readings:

- Arendt, H. (1968). Truth and politics. In *Between past and future: Eight exercises* in political thought (pp. 227–264). Viking Press. (Original work published 1967).
- Buschke, H., Bräth, E., Fiedler, M., Gathmann, F., Große, J., Köster, I., Antoniadis, N., & Schlüter-Ahrens, R. (2024). Sieben Aussagen von Höcke und Voigt im Faktencheck. *Der Spiegel*. https://www.spiegel.de/politik/deutschland/tv-duell-zwischen-bjoern-hoecke-und-mario-voigt-sieben-aussagen-im-faktencheck-a-c3c045b5-e6b6-4828-b3b5-d57fdd3cce39
- Sperber, D., Clément, F., Heintz, C., Mascaro, O., Mercier, H., Origgi, G., & Wilson, D. (2010). Epistemic vigilance. Mind~&~Language,~25(4),~359-393. https://doi.org/10.1111/j.1468-0017.2010.01394.x

#### Background Readings:

- Cram, I. (2022). Liberal democracy, law and the citizen speaker: Regulating online speech. Hart Publishing.
- Friedman, J. (2020). Power without knowledge: A critique of technocracy. Oxford University Press. https://doi.org/10.1093/oso/9780190877170.001.0001
- Kosseff, J. (2023). Liar in a crowded theater: Freedom of speech in a world of misinformation. Johns Hopkins University Press.

#### Session Prep:

• Following Arendt (1967/1968), what are truths?

- Following Arendt (1967/1968), what are opinions?
- Are all opinions equally valid and how can "epistemic vigilance" help?
- What is the role of epistemic institutions?
- Critically discuss Buschke et al. (2024) in light of the points raised by Arendt (1967/1968).

# 3.3 Week 3: What makes the contemporary public arena vulnerable? (May 2)

### Required Readings:

- Bennett, W. L., & Livingston, S. (2018). The disinformation order: Disruptive communication and the decline of democratic institutions. *European Journal of Communication*, 33(2), 122–139. https://doi.org/10.1177/0267323118760317
- Jungherr, A., & Schroeder, R. (2021). Disinformation and the structural transformations of the public arena: Addressing the actual challenges to democracy. *Social Media + Society*, 7(1), 1–13. https://doi.org/10.1177/2056305121988928

#### Background Readings:

- Graves, L. (2016). Deciding what's true: The rise of political fact-checking in American journalism. Columbia University Press.
- Jungherr, A., & Schroeder, R. (2022). Digital transformations of the public arena. Cambridge University Press. https://doi.org/10.1017/9781009064484
- Kovach, B., & Rosenstiel, T. (2021). The elements of journalism: What newspeople should know and the public should expect (4th ed.). The Crown Publishing Group. (Original work published 2001).
- Rauch, J. (2021). The constitution of knowledge: A defense of truth. Brookings Institution Press.
- Scheirer, W. J. (2024). A history of fake things on the internet. Stanford University Press.

#### Session Prep:

- Following Jungherr and Schroeder (2021), what is the public arena?
- Following Jungherr and Schroeder (2021), what are structures hosting the public arena?
- Following Bennett and Livingston (2018), why is the contemporary public arena vulnerable to disinformation?
- What can be done?

# 3.4 Week 4: No meeting (May 9)

# 3.5 Week 5: Sources of disinformation (May 16)

#### Required Readings:

- Golebiewski, M., & boyd, d. (2019). Data voids: Where missing data can easily be exploited. Data & Society. https://datasociety.net/wp-content/uploads/2019/11/Data-Voids-2.0-Final.pdf
- Illing, S. (2020). "Flood the zone with shit": How misinformation overwhelmed our democracy. Vox. https://www.vox.com/policy-and-politics/2020/1/16/20991816/impeachment-trial-trump-bannon-misinformation
- Nielsen, R. K. (2024a). Forget technology politicians pose the gravest misinformation threat. *Financial Times*. https://www.ft.com/content/5da52770-b474-4547-8d1b-9c46a3c3bac9
- Subramanian, S. (2017). Inside the Macedonian fake-news complex. Wired. https://www.wired.com/2017/02/veles-macedonia-fake-news/
- Treyger, E., Cheravitch, J., & Cohen, R. S. (2022). Russian disinformation efforts on social media. RAND Corporation. https://www.rand.org/content/dam/rand/pubs/research\_reports/RR4300/RR4373z2/RAND\_RR4373z2.pdf Chapters 2-3 (pp. 11-84)

#### Background Readings:

- Green, J. (2017). Devil's bargain: Steve Bannon, Donald Trump, and the storming of the Presidency. Penguin Press.
- Harold, S. W., Beauchamp-Mustafaga, N., & Hornung, J. W. (2021). *Chinese disinformation efforts on social media*. RAND Corporation. https://www.rand.org/content/dam/rand/pubs/research\_reports/RR4300/RR4373z3/RAND\_RR4373z3.pdf
- Phillips, W., & Milner, R. M. (2017). The ambivalent internet: Mischief, oddity, and antagonism online. Polity Press.
- Rid, T. (2020). Active measures: The secret history of disinformation and political warfare. Farrat, Straus; Giroux.

#### Session Prep:

- Who are the actors who are actively turning to disinformation?
- What are their motives for turning to disinformation?
- What are possibilities for interventions and should we differentiate between actors?

# 3.6 Week 6: Reach of disinformation (May 23)

#### Required Readings:

- Allen, J., Howland, B., Mobius, M., Rothschild, D., & Watts, D. J. (2020). Evaluating the fake news problem at the scale of the information ecosystem. *Science Advances*, 6(14), eaay3539. https://doi.org/10.1126/sciadv.aay3539
- Farhi, P. (2024). Right-wing media are in trouble. *The Atlantic*. https://www.theatlantic.com/politics/archive/2024/04/conservative-digital-media-traffic/678055/
- Moore, R. C., Dahlke, R., & Hancock, J. T. (2023). Exposure to untrustworthy websites in the 2020 US election. *Nature Human Behavior*, 7, 1096–1105. https://doi.org/10.1038/s41562-023-01564-2
- Thompson, D. (2018). Trump's lies are a virus, and news organizations are the host. *The Atlantic*. https://www.theatlantic.com/ideas/archive/2018/11/should-media-repeat-trumps-lies/576148/

#### Background Readings:

- Benkler, Y., Faris, R., & Roberts, H. (2018). Network propaganda: Manipulation, disinformation, and radicalization in American politics. Oxford University Press. https://doi.org/10.1093/oso/9780190923624.001.0001
- Jungherr, A., Posegga, O., & An, J. (2019). Discursive power in contemporary media systems: A comparative framework. *The International Journal of Press/Politics*, 24(4), 404–425. https://doi.org/10.1177/1940161219841543

#### Session Prep:

- What is the reach of disinformation?
- What are different ways, disinformation can reach people?
- How can we measure the reach of disinformation

# 3.7 Week 7: No meeting (May 30)

# 3.8 Week 8: Effects of disinformation (June 6)

#### Required Readings:

- Funkhouser, E. (2022). A tribal mind: Beliefs that signal group identity or commitment. *Mind & Language*, 37(4), 444–464. https://doi.org/10.1111/mila.12326g
- Jungherr, A., & Rauchfleisch, A. (2024). Negative downstream effects of alarmist disinformation discourse: Evidence from the United States. *Political Behavior*, 1–21. https://doi.org/DOI:10.1007/s11109-024-09911-3

• Nyhan, B. (2020). Facts and myths about misperceptions. *Journal of Economic Perspectives*, 34(3), 220–236. https://doi.org/10.1257/jep.34.3.220

#### Background Readings:

- Funkhouser, E. (2017). Beliefs as signals: A new function for belief. *Philosophical Psychology*, 30(6), 809–831. https://doi.org/10.1080/09515089.2017.1291929
- Kahan, D. M. (2016a). The politically motivated reasoning paradigm, part 1: What politically motivated reasoning is and how to measure it. In R. A. Scott & M. C. Buchmann (Eds.), *Emerging trends in the social and behavioral sciences* (pp. 1–16). John Wiley & Sons. https://doi.org/10.1002/9781118900772.etrds0417
- Mercier, H., & Sperber, D. (2017). The enigma of reason. Harvard University Press. https://doi.org/10.4159/9780674977860
- Mercier, H. (2020). Not born yesterday: The science of who we trust and what we believe. Princeton University Press.

#### Session Prep:

- What are potential effects of disinformation?
- What are potential negative effects of alarmist warnings?
- Why do people express false beliefs?
- Why is it so difficult to persuade partisans?

# 3.9 Week 9: Phenomenon of interest (June 13)

#### Background Readings:

- Becker, H. S. (1998). Tricks of the trade: How to think about your research while you're doing it. The University of Chicago Press.
- Gerring, J., & Seawright, J. (2022). Finding your social science project: The research sandbox. Cambridge University Press. https://doi.org/10.1017/9781009118620
- Luker, K. (2008). Salsa dancing into the social sciences: Research in an age of info-glut. Harvard University Press.

# 3.10 Week 10: Research questions and hypotheses (June 20)

#### Background Readings:

• Howard, C. (2017). Thinking like a political scientist: A practical guide to research methods. The University of Chicago Press. Chapters 1-3 (pp. 13-92).

# 3.11 Week 11: Research design (June 27)

Background Readings:

- Howard, C. (2017). Thinking like a political scientist: A practical guide to research methods. The University of Chicago Press. Chapter 4 (pp. 93-116).
- Kellstedt, P. M., & Whitten, G. D. (2018). The fundamentals of political science research (3rd ed.). Cambridge University Press. https://doi.org/10.1017/9781108131704 (Original work published 2009). Chapter 4 (pp. 77-103).

# 3.12 Week 12: Questions and feedback (July 4)

# 3.13 Week 13: Presentation of study prototype (July 11)

Background Readings:

• Schwabish, J. (2017). Better presentations: A guide for scholars, researchers, and wonks. Columbia University Press.

# 3.14 Week 14: Discussion and open questions (July 18)