

# Disruption and the Digital Economy: Markets, Strategies, and Society

## Topic Description

Disruption is a pervasive feature of the digital economy. Disruptions were particularly prevalent during the COVID-pandemic, which acted as a catalyst for the slow process of digitization. Many sudden and drastic changes were the consequence. Lockdowns and homeworking shifted many businesses online. Online markets thrived while markets that could not move online collapsed. Firms had to rethink with whom they compete and how they do business. The definition and working of markets fundamentally changed.

Other examples include FinTechs disrupting the banking sector, streaming services scrambling up the television industry, and Apple's introduction of robust tracking prevention measures threatening internet services that monetize through online advertising. Digital public goods, such as Wikipedia, Google Maps reviews, or forecasting platforms (e.g., [www.gjopen.com/questions](http://www.gjopen.com/questions)), have significantly remodeled information markets and are now ubiquitous in our everyday lives. In the coming years, the metaverse might fundamentally redefine how people interact. Several lawsuits scrutinizing Big Tech's abuse of market power might force them to rethink their business models.

In this seminar, students investigate a market that was (or might be) disrupted. "Disruption" and "digital economy" can be interpreted broadly. Roughly speaking, the market should be subject to a drastic change, and technology or digitization should play a role.

1. Students demonstrate that they understand the essential features of the market before and after the disruption.
2. They explain which economic models help understand the market before and after the disruption or why existing models do not fit well. An overview of such models can be found in IO textbooks like Belleflamme & Peitz (2015) or Tirole (1998).
3. Students discuss how the disruption affects business strategies, incentives, and market outcomes.
4. Students might also discuss market interventions that can improve the market outcome from a societal perspective.

## Scope of the Seminar

In the seminar, no topics will be handed out. Instead, students can work on a market in which they are particularly interested and developing a research question is part of their performance. They will work in groups of up to four, depending on the total number of participants. If the process of group formation is unsuccessful, participants will be assigned.

The seminar starts with an **introductory meeting on Thursday, 20 Oct 2022**. Ideas will be presented in a **blocked event in January 2023**. Each presentation should last 20 minutes. Successful participation requires attendance at the presentations of all groups. Each group must hand in a seminar paper of 8 – 10 pages at the end of the semester.

It will be possible to apply to the seminar via the centralized platform until **9 October 2022**.

Please note that we will ask you for a brief description of the topic and the research idea you are interested in to ensure a well-balanced variety in the seminar. Students are not required to solve formal mathematical models. Still, prior attendance in a course that teaches game theoretical reasoning (e.g., "Einführung in die Spieltheorie," "Auction and Mechanism Design"...) is helpful. An excellent example of game-theoretical reasoning about strategies and incentives without a formal mathematical analysis can be found in Brandenburger & Nalebuff (1996, 2021). Don't hesitate to contact Frank Rosar (frank.rosar@kit.edu) or David Ehrlich (david.ehrlich@kit.edu) for further questions.

### References and Sources of Inspiration

- Bower, J. L. & Christensen, C. M. (1995): *Disruptive Technologies: catching the wave*. *Harvard Business Review January-February 1995*.
- Belleflamme, P. & Peitz, M. (2015): *Industrial organization: markets and strategies*. *Cambridge University Press*.
- Tirole J. (1988): *The theory of industrial organization*. *MIT press*.
- Brandenburger, A. & Nalebuff, B. (2021): *The rules of co-opetition*. *Harvard Business Review January-February 2021* (<https://hbr.org/2021/01/the-rules-of-co-opetition>)
- Brandenburger, A. & Nalebuff, B. (1996): *Co-opetition*. *Currency*.
- New York Times (2020): Facebook takes the gloves off in feud with Apple. *New York Times, December 16, 2020*.  
(<https://www.nytimes.com/2020/12/16/technology/facebook-takes-the-gloves-off-in-feud-with-apple.html>)
- TechCrunch (2021): Europe charges Apple with antitrust breach, citing Spotify App Store complaint. TechCrunch, April 30, 2021.  
(<https://techcrunch.com/2021/04/30/europe-charges-apple-with-antitrust-breach-citing-spotify-app-store-complaint/>)