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

## Topic Description

Merriam Webster defines disruption as “a break or interruption in the normal course or continuation of some activity, process, etc.” The COVID-pandemic acted as a catalyst for the slow process of digitization and caused many sudden and drastic changes. Lockdowns and home working 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. In short, the definition and working of markets fundamentally changed. Further drastic changes are likely to occur in the course of the economy’s transition to the new normal.

Even if one ignores the broad array of disruptions triggered by the pandemic, disruption is a pervasive feature of the digital economy. FinTechs and cryptocurrencies disrupt the banking sector. Streaming services scramble up the television industry. Apple’s introduction of robust tracking prevention measures impact the functioning of internet services that are monetized through online advertising (ad auctions). Conversely, a number of lawsuits scrutinizing Apple's abuse of market power (e.g., Apple vs Epic Games, Apple vs Spotify) threaten Apple's own business model. Even breaking up the big tech companies is prominently discussed by politicians.

In the seminar, studends investigate a market that was (or might be) hit by a disruption.

1. They demonstrate that they understand the essential features of the market before and aftere the disruption.
2. They explain which economic models are useful for understanding the markets 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. They discuss how the disruption affects business strategies and market outcomes.
4. They discuss market interventions that have the potential to improve the outcome from a societal perspective.

The discussion should highlight strategic interdependencies (i.e., it should be game theoretical) and the students should be able to defend their thoughts and reasoning, but they are not required to solve formal mathematical models. A nice example for game theoretical discussions without a formal mathematical analysis can be found in Brandenburger & Nalebuff (1996, 2021).

## Scope of the Seminar

Please note that no topics will be handed out. Instead, participants will develop their own research question in the broad field of Digital Economics. Students 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 October 20. Ideas will be presented in a blocked event on January 21. Each presentation should last max. 20 minutes. Full attendance in all meetings is required for successful participation in the seminar. Group seminar papers of 8 – 10 pages, as well as an individual abstracts are to be handed in at the end of the semester.

Please note that we will ask you for a brief description of the topic and research idea you are interested in, in order to ensure a well-balanced variety in the seminar. Some prior knowledge and/or a general interest in Game Theory is recommended. For further questions, please contact David Huber (david.huber@kit.edu).

## 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/)