Interoperability in the Digital Economy: Technical Approaches and Economic Incentives [Working title]

Motivation: The digital economy consists of hundreds of billions of different devices, each running multiple applications. Whereas a handful of those devices can serve their purpose on their own, most of them are better utilized when they can interconnect with others. Smart watches work better if they can connect to a smartphone, emails would be much less reliant if different email servers and applications could not exchange them, and many smartphone apps work better if they can access the data collected by the phone. Therefore, understanding both how interoperability is reached on the technical level, as well as understanding the incentives of different companies to support interoperability, can help better understand the digital economy.

Main Goal: The goal of the thesis is to analyze how interoperability arises in the digital markets. This should include both a discussion on how the interoperability can be reached on a more technical level (for example, through de facto or de jure standards, APIs, adapters, etc.), as well as the economic incentives for firms to use different approaches to interoperability. Depending on the preferences of the student, the thesis can be profiled more into looking more in depth into one avenue of reaching interoperability (for example, standardization), or take a more general view and compare different ways in which interoperability can be reached. The thesis can be carried out as a literature review.

References and Further Reeding:

Bourreau, M., & Kraemer, J. (2023). Interoperability in Digital Markets: Boon or Bane for Market Contestability?

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Katz, M. L., & Shapiro, C. (1985). Network Externalities, Competition, and Compatibility [Publisher: American Economic Association]. *The American Economic Review*, *75*(3), 424–440

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