

Pricing strategies of operating systems: A two-sided platform perspective

[Working title]

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Motivation:

Operating systems (e.g. for personal computers, smartphones, video game consoles, etc.) can be economically analysed as two-sided platforms, with the users on one side and the software producers on the other. A platform owner has multiple ways of pricing: the platform can charge so-called 'membership fees' on one or both sides of participants (e.g. Windows licence fee) or the 'transaction fees' on the sales of application software (e.g. iOS commission on each app purchase). See for example Belleflamme and Peitz (2021, Chapter 5) for an overview of the theoretical models.

Different operating systems across product categories and time have used different pricing strategies. For example, Microsoft Windows historically charges a licence fee from the users (or OEMs) but has no mechanism to exclude third-party software producers or monitor sales of third-party applications. On the other hand, video game console platforms (e.g. PlayStation and Nintendo systems) and Apple's iOS for mobile devices establish tight control of which applications are available on their systems.

The new EU Digital Markets Act (Regulation 2022/1925, art 6(4)) seeks to force large platform operators ('gatekeepers') to allow the installation of third-party software without restrictions (i.e. 'side-loading'). This means, for example, that while Apple may continue to operate its App Store on iOS, it cannot prevent users from installing software obtained from other sources. To understand the purpose and potential effects of such a regulation, we seek first to understand why a platform may pursue such a strategy in the first place.

Goal:

The goal of this thesis is to better understand why operating system platforms choose different pricing strategies. This can be done by, for example, collecting the data on the pricing strategies and characteristics of 'operating systems' with respect to their users and software producers and discussing the factors that may affect the strategies pursued by these platforms, especially with respect to the economic theories.

References and Related Literature:

Belleflamme, P., & Peitz, M. (2021). *The economics of platforms: Concepts and strategy*. Cambridge University Press.

Hagiu, A. (2009). Two-sided platforms: Product variety and pricing structures. *Journal of Economics & Management Strategy*, 18(4), 1011–1043.

Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) [2022] OJ L 265