



Universidad  
Carlos III de Madrid  
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# Platform Competition and Seller Investment Incentives

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Paper by Paul Belleflamme and Martin Peitz  
Discussion by Natalia Fabra



**This is a Great Paper!**



# Overview

- How does for-profit intermediation affect sellers' investments?
  - Two-sided markets: a wide phenomenon
  - Investment incentives: a critical issue
    - Cost-reduction, quality improvements, marketing
  - Very relevant for public policy: subsidies to enhance R+D investment?
  
- Set-up:
  - Buyers and sellers interact through 2 platforms
  - Indirect network effects
  - Platforms are on two extremes of a linear city
  - Buyers and sellers incur transportation costs, depending on their (uniformly distributed) locations
  - If for-profit, platforms charge access fees to buyers and sellers



# Main Insights

- Investment incentives depend on marginal effects rather than on profit levels per-se.
  - For-profit intermediation may lead to stronger investment incentives than free access (even if profits are lower)
- The trading environment (for profit vs. open-source and single vs. multi-homing) affect investment incentives



# Main Intuition

## **Investment Incentives in Proprietary Platforms (single-homing)**

1. A seller invests in improving the quality of its products
2. This strengthens network effects (one extra seller attracts more buyers)
3. Sellers become more valuable for the platform
4. Platforms compete more fiercely to attract sellers
5. Access prices go down
6. Seller profits go up, which strengthens investment incentives.

- Since 3.,4. and 5. do not arise in open platforms, **investment incentives in open platforms are lower than in proprietary platforms**



# Main Intuition

- Comparison between investment incentives also depends on whether there is single/multi-homing:
  - This determines whether competition among proprietary platforms is stronger/weaker, and whether this feeds into higher or lower access charges [fiercer competition for the single-homing side]

## Results:

- **Sellers multi-home:** competition to attract sellers is weaker, so that the reduction in access prices following a quality improvement is weaker
- The opposite holds when **buyers multi-home**



## Other Issues

- Proprietary or open-source?
  - What is the objective function?
  - Do we want better products or cheaper products?
  - More products? Product availability for all consumers?
  
- Investment incentives when one of the competing platforms is open-source while the other is proprietary?



# Recent Competition Policy Cases

- **Oracle/Sun Microsystems** (Sun owns MySQL, an open-source platform for software that competes with Oracle's)
  - Any risk that Oracle creates obstacles to competitors by making it more difficult to develop commercial products based on MySQL?
  - How would this affect incentives to develop better software?
  
- **Google's digital library** (online access to out-of-print books)
  - How does this affect the incentives of other authors that sell through for-profit platforms (publishers)?
  - How does this affect governments' attempts to create publicly funded online access to library inventories?