

Mikko Mustonen

1 Lecture: Network, network effects

Motivation, some examples. The three approaches (of Shy)

Some basic theory of network externalities (or effects)

1. Firms competing in a network industry (Katz and Shapiro 1985)
2. The role of expectations (Farrell and Katz 1998)
3. Short: Standards versus variety
4. A glance on empirical studies

Katz M. and C. Shapiro, 1985, Network externalities, competition and compatibility, *American Economic Review* 75, 424-440.

Farrell, J. and M. Katz, 1998, The effects of antitrust and intellectual property law on compatibility and innovation, *Antitrust Bulletin* 43(3/4), 609-651.

Farrell, Joseph and Paul Klemperer (2007), Coordination and Lock-In: Competition with Switching Costs and Network Effects, chapter for the *Handbook of Industrial Organization*. www.paulklemperer.org, pages 2007-2054

2 Lecture: Network, network effects applications

We discuss telecommunications (idea from Rohlfs 1974), software (Mustonen 2005), vaccines – a negative network externality (Kessing and Nuscheler 2006) (and if time allows: Entry to a network industry (Kristiansen 1996).)

Mustonen M., 2005, When do firms support the development of substitute copyleft programs? *Journal of Economics and Management Strategy*, 14(1), 121-139.

Kessing S. and Nuscheler R., 2006, Monopoly pricing with negative network effects: The case of vaccines, *European Economic Review* 50, p. 1061-1069

Related Literature to lectures 1,2

Tirole J., 1988, The theory of industrial organization, ch 10.6.

Besen, S. and J.Farrell, 1994, Choosing how to compete: Strategies and tactics in standardization, Journal of economic Perspectives 8(2), 117-131.

DePalma, A and L. Leruth, 1996, Variable willingness to pay for network externalities with strategic standardization decisions, European journal of Political economy 12, 235-251.

Economides N., 1996a, Network externalities, complementarities, and invitations to enter, European Journal of Political Economy 12, 211-233.

Economides N., 1996b, The economics of networks, International Journal of Industrial Organization 14, 673-699.

Koski H. and Kretschmer T., 2004, Survey on competing in network industries: Firm strategies, Market outcomes and policy implications, Journal of Industry, Competition and Trade, Bank Papers, 5-31.

Shy, O., 2001, The Economics of Network Industries, Cambridge University Press

Oz Shy, 2010 A Short Survey of Network Economics, [FRB of Boston Working Paper No. 10-3](#), www.ssrn.com

3 Lecture: Switching costs, maybe also intermediation

A look at the theory and some empirical research on (consumer) switching costs

Farrell, Joseph and Paul Klemperer (2007), Coordination and Lock-In: Competition with Switching Costs and Network Effects, chapter for the Handbook of Industrial Organization. www.paulklemperer.org, pages 1970-2007

Related Literature

Klemperer, Paul. 1995. "Competition When Consumers Have Switching Costs: An Overview With Applications to Industrial Organization, Macroeconomics, and International Trade". *Review of Economic Studies* 62:515-39. [JSTOR](#)

4 Lecture: Intermediation and two-sided markets

"In two sided markets two or more parties interact on a platform and the interaction is affected by 'special' network externalities...the distribution of prices influences market participation and overall volume of demand..." (Roson). We take a look at the economic modelling and its results.

Rochet, Jean-Charles, and Jean Tirole. 2004, "Two-sided markets: An overview.

http://www.mangematin.org/MCOI/MCOI%202009/journee_7_11_08/rochet_tirole%202004._twosided%20markets.pdf

Evans, D., Schmalensee, R. (2007), *Industrial Organization of Markets with Two-Sided Platforms*, Nber w11603 or Competition Policy International, Vol. 3, No. 1 pp. 151-179.

Roson R, 2005, Two-sided markets: A tentative survey, *Review of Network Economics* 4(1) 142-160

Related literature

Baye, Michael R., and John Morgan. 2001. "Information Gatekeepers on the Internet and the Competitiveness of Homogenous Markets". *The American Economic Review* 91:454-74. [JSTOR](#).

Marc Rysman (2004), Competition between Networks: A Study of the Market for Yellow Pages, *Review of Economic Studies*, 71 , 483-512.

Caillaud, Bernard, and Bruno Jullien. 2001. "Competing Cybermediaries". *European Economic Review* 45:797-808.

Rochet, Jean-Charles, and Jean Tirole. 2003. "Platform Competition in Two-Sided Markets". *Journal of the European Economic Association* 1:990-1029. [JSOTR](#).