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<p>Tiivistelmä-Referat-Abstract</p> <p>Essay 1: An astonishing phenomenon is the rise of a large population of programmers who, seemingly against economic logic, develop and distribute software that is copylefted: freely available but licensed. Our paper suggests that the occupational choices of programmers based on reputation incentives determine the qualities of programs. When software implementation costs are low, the monopolist accepts the copyleft program in the market. We explain the simultaneous existence of commercial and copylefted programs, like Windows and Linux, and also why commercial alternatives to copyleft programs may not exist.</p> <p>Essay 2: Firms in the IT-industry use resources to initiate and support copyleft programmers' communities, which develop competing free programs. We introduce a model where programs exhibit network effects in the consumer market and where a monopoly firm selling a copyright program has an incentive to support the development of a free copyleft substitute program. The incentive arises under a weak network effect even when the network of copyleft programmers is small compared to consumer network. We report welfare results under different market outcomes.</p> <p>Essay 3: The future compatibility of a product can be important to a buyer. With IT products, switching costs may in the worst cases well exceed the purchasing price. We develop a model in which rational buyers value products by their expected levels of future compatibility, using suppliers' R&amp;D budget levels as signals. Suppliers compete by investing in R&amp;D to increase compatibility. In all the analysed market scenarios R&amp;D investment levels fall short of the social optimum.</p> <p>Essay 4: When buyers value products in terms of the expected compatibility between the current and the new vintage, firms can invest strategically to control for the switching costs. Their open announcements of R&amp;D budgets transmit information to buyers and to competitors. Since only an efficient firm finds it optimal to have a large R&amp;D-budget, a firm can signal its private information of its production cost to the uninformed rival. The paper proves that the likely outcome is a unique separating equilibrium if the R&amp;D cost is low but the uncertainty of the rival's production cost large.</p>		
<p>Avainsanat-Nyckelord-Keywords</p> <p>open source - software</p> <p>copyleft programs</p> <p>Linux</p> <p>compatibility</p> <p>network effect</p>		
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