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COMPLEMENTORS AND NETWORK EFFECTS? EVIDENCE FROM ON-LINE MULTI-PLAYER

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Abstract

In a growing number of industries, network effects are at the heart of industrial dynamics. Two-sided network effects emerge when buyers prefer platforms with an attractive selection of complementary goods and adoption then triggers added investment in complements. However, in a new generation of software and web-related platforms, complementary software developers are often paid little or nothing. Even where there might be strong non-monetary motivations (e.g., intrinsic, pro-social, signaling motivations), the relevant question regarding network effects is whether platform growth causes an intensification of these incentives and resulting development. To investigate these issues, we study a context where developers received no direct payments, whatsoever: on-line multi-player games built on computer game engine platforms (2002-2004). Despite the fundamentally different motivations and behaviors in this context and considerable heterogeneity in responses, we confirm the presence of cross-platform network effects. We also find a weakly negative response of developers to same-side interactions. Most generally, the analysis documents the importance of non-monetary motivations in shaping industrial dynamics. We discuss implications and numerous remaining questions for policy and theory, and speculate on boundary conditions for these effects.

