A Video-Sharing Platform's Optimal Revenue Model

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Abstract

We consider a profit-maximizing video-sharing platform that attempts to adopt an optimal revenue model: an advertising-supported model, a subscription model, or a hybrid one. Under the advertising model, viewers watch videos for free but have to bear with ads; while under the subscription model, viewers watch ad-free videos for a subscription fee. We build a game-theoretical model to consider the decisions of the platform owner, video providers and viewers. We find that the platform owner chooses the optimal revenue model based on the marginal ad-related quality loss, the ad revenue rate, and the marginal quality-production cost. Specifically, a higher marginal ad-related quality loss hurts the profit of the platform owner adopting the pure advertising strategy, but it may enable the platform owner adopting the hybrid strategy to earn more profit. We also find that the platform owner's optimal revenue model selection happen to be socially optimal in many cases.

Keywords: Video-sharing platform, Advertising revenue model, Subscription revenue model, Hybrid revenue model, Two-sided platform