

Evolutionary Generalized Nash equilibrium for the competition for the diffusion of online contents

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Abstract

In this paper, we show how the competition for the diffusion of online contents in the case of coupled constraints and in a time-dependent setting can be transformed into and studied as an infinite-dimensional quasi-variational inequality. Specifically, we consider a two-layer network consisting of content providers and viewers. Each content provider seeks to maximize the profit by determining views and quality levels. The problem is formulated as a Generalized Nash equilibrium model and is then described by an infinite-dimensional quasi-variational inequality. The existence of solutions is discussed and a numerical example is given.

References

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