AI Economic Series

AI-Enabled Rent-Seeking: How Generative AI Alters Market Transparency and Efficiency

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Background &Motivation

- Generative AI is rapidly transforming the information environment by dramatically lowering the cost of content creation, dissemination, and manipulation. While improved information technologies have traditionally been associated with greater transparency and efficiency, generative AI introduces a fundamental tension: it simultaneously expands access to information and enables new, low-cost forms of strategic manipulation. As a result, classical mechanisms through which markets discipline rent-seeking—such as scarcity of information, verification costs, and reputational frictions—are being reshaped rather than simply weakened.
- This shift raises a central economic concern. By altering how information is produced, distorted, and verified, generative AI changes the nature of rent-seeking itself—from overt control of scarce resources to subtle manipulation of algorithms, signals, and belief formation. Understanding how these new AI-enabled behaviors interact with market dynamics and regulatory interventions is essential for assessing their consequences for market transparency, efficiency, and social welfare.

Research Questions

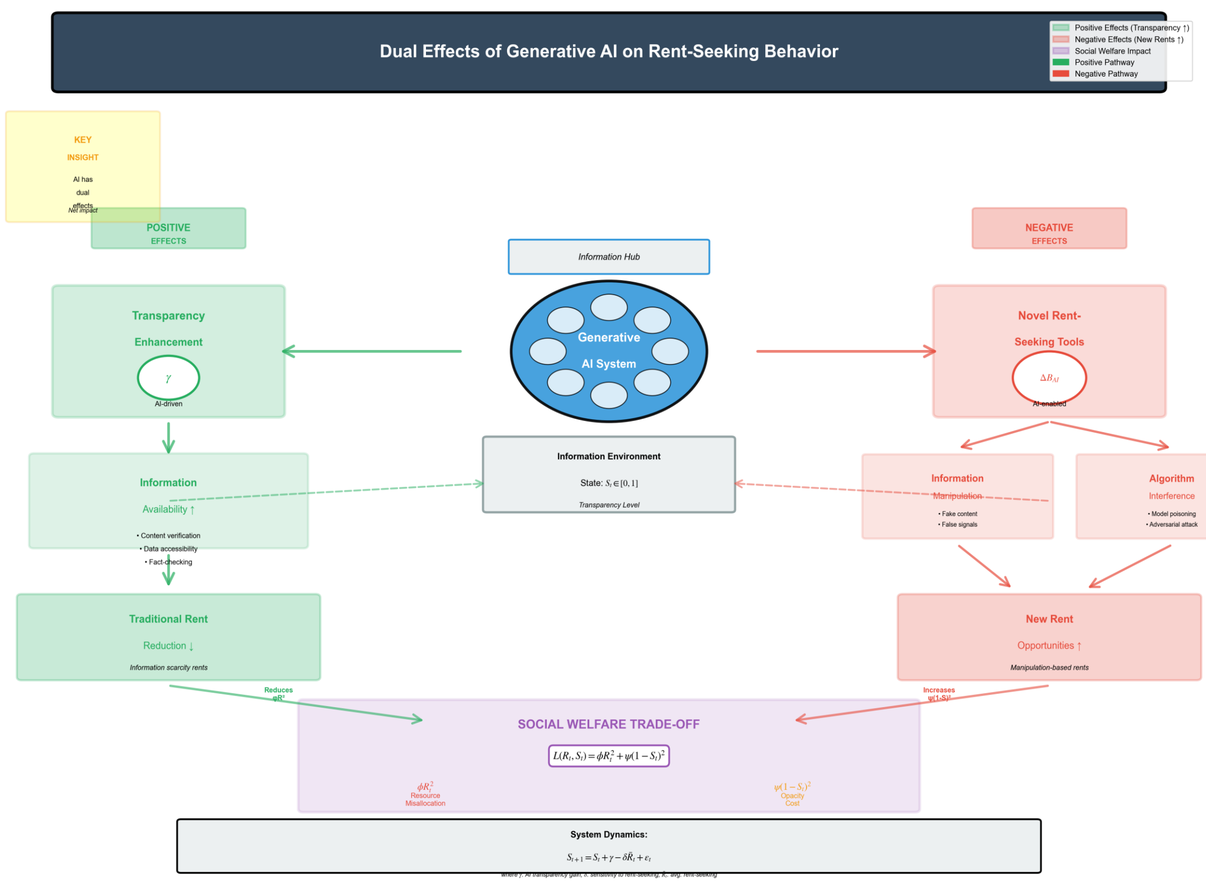
RQ1: How does generative AI reshape rent-seeking behavior by simultaneously increasing information transparency and enabling new forms of manipulation?

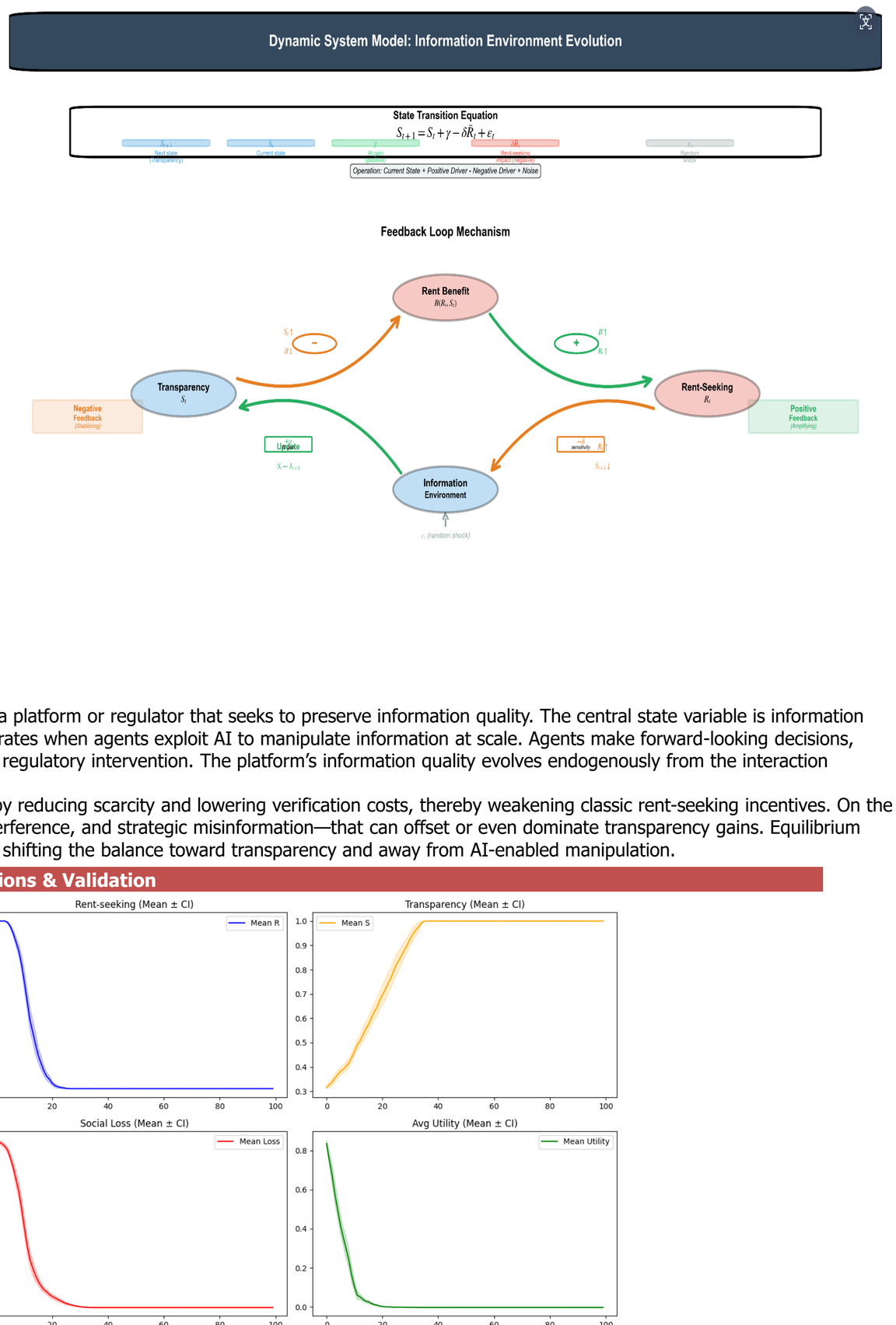
RQ2: Under what conditions does generative AI reduce traditional information rents, and when does it instead generate novel AI-enabled rents?

RQ3: How do these effects translate into changes in market transparency, efficiency, and social welfare?

RQ4: Which policy instruments—such as taxation, detection, or disclosure—are most effective in curbing harmful rent-seeking without undermining beneficial uses of generative AI?

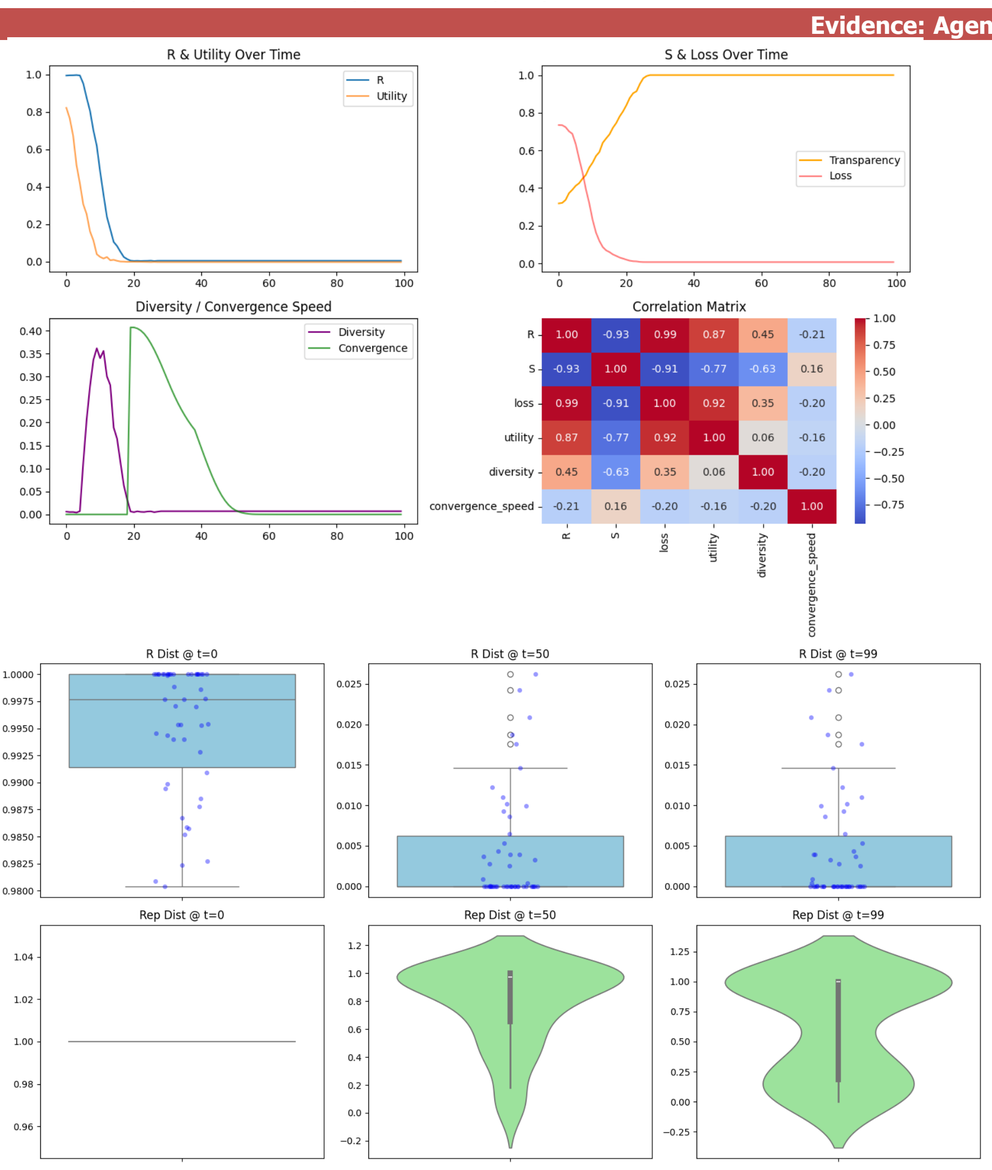
Model & Theory





- We model a dynamic information ecosystem populated by strategic agents who may engage in rent-seeking and a platform or regulator that seeks to preserve information quality. The central state variable is information transparency, which improves as generative AI enhances verification, traceability, and content review, but deteriorates when agents exploit AI to manipulate information at scale. Agents make forward-looking decisions, balancing short-term gains from manipulation against long-term penalties such as detection, reputation loss, and regulatory intervention. The platform's information quality evolves endogenously from the interaction between these opposing forces.
- The core mechanism is a dual effect of generative AI. On one hand, AI compresses traditional information rents by reducing scarcity and lowering verification costs, thereby weakening classic rent-seeking incentives. On the other hand, it enables new, scalable forms of rent-seeking—such as synthetic content generation, algorithmic interference, and strategic misinformation—that can offset or even dominate transparency gains. Equilibrium outcomes depend on which force prevails, and policy tools such as taxation, detection, and disclosure operate by shifting the balance toward transparency and away from AI-enabled manipulation.

Evidence: Agent-Based Simulations & Validation



We run agent-based simulations in two complementary settings. First, a single-period, single-agent "controlled" environment isolates the causal effect of generative-AI-enabled information tools by comparing outcomes with vs. without AI signals (or AI-enabled verification) while holding market conditions fixed. Second, a multi-period, multi-agent environment captures feedback loops over multiple cycles: agents adapt their strategies as the information environment evolves, while the platform/regulator updates governance intensity (e.g., detection/disclosure/tax) and contracts/payout rules respond to observed behavior. Across runs, we vary **market structure** (competitive, oligopoly, monopoly) to test how market power shapes both the benefits of AI-enhanced transparency and the emergence of an "information arms race."

Our main results are summarized with a small set of "storyline" plots that track how generative AI reshapes behavior and the information environment. First, time-series panels show that rent-seeking/manipulative investment rapidly falls after governance and reputation signals become salient, while platform transparency rises and aggregate social loss declines—typically with a fast convergence window early in the simulation. Second, we plot effort and selection outcomes: AI-enhanced information improves matching (lower adverse selection) and raises productive effort, with the gains concentrated among higher-quality types in the controlled single-agent setting. Third, we compare market structures side-by-side: competitive markets deliver the strongest joint improvements in selection, effort, and welfare; oligopoly yields moderate improvements but exhibits "information arms race" dynamics; monopoly tends to show weaker or uneven welfare gains, where efficiency can rise but rent extraction and inequality increase. To make the mechanism visually tight, we include (i) phase-space trajectories of transparency versus rent-seeking (with utility/welfare encoded by intensity), and (ii) distribution snapshots (histograms) of investment and reputation across early vs late periods to highlight convergence and residual polarization.

Conlusion

- In conclusion, generative AI fundamentally reshapes rent-seeking by altering the structure of information production, verification, and manipulation. While AI-driven transparency can substantially improve welfare, its benefits are uneven and depend on market structure and regulatory design. Competitive environments tend to translate better information into broad welfare gains, whereas concentrated markets risk amplifying rent extraction and inequality. Effective AI governance must therefore be market-structure-aware, balancing innovation incentives with safeguards that align private behavior with social welfare in an increasingly AI-mediated information economy.