How does Competition Policy need to change in a world of Artificial Intelligence?

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MIT Sloan and NBER

AI and the Future of Competition Policy

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JOURNAL ARTICLE

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Abstract

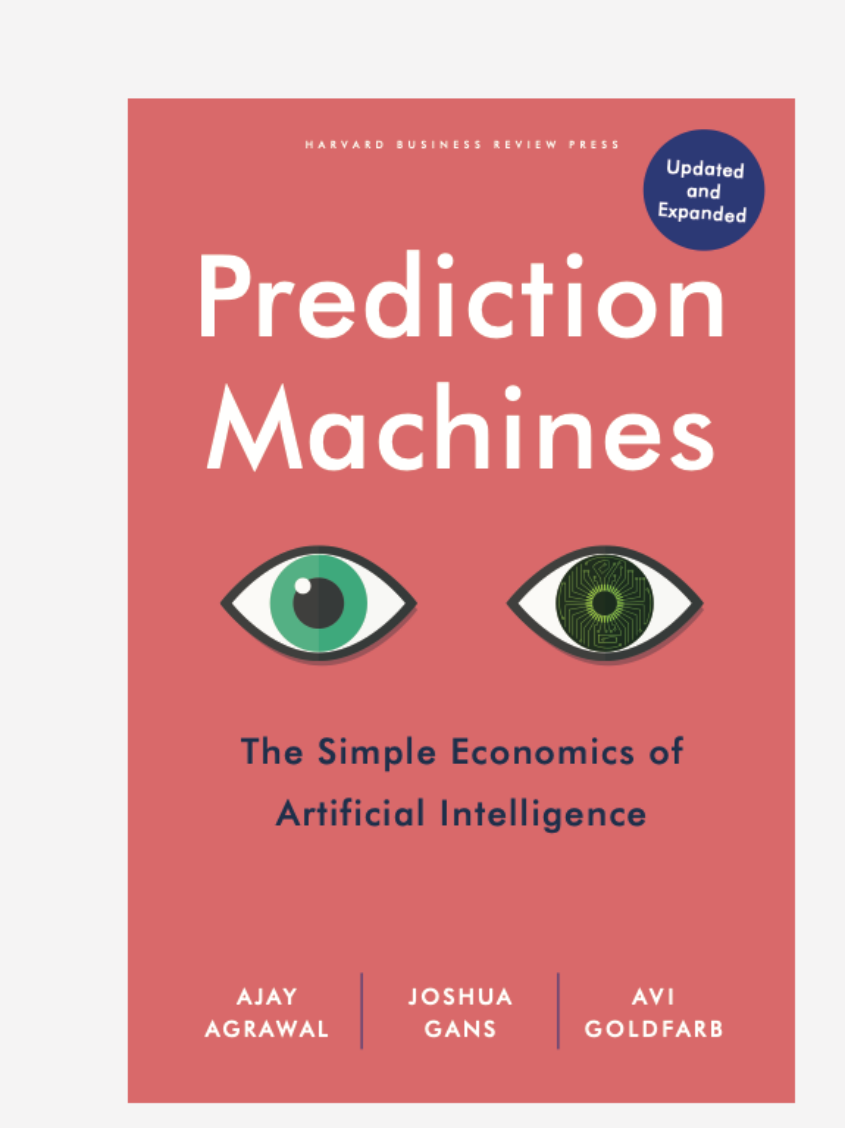
This paper investigates how the advent of artificial intelligence is likely to change competition policy. As economists we tend to view artificial intelligence as a technology that lowers the costs of prediction. In general, we know that lowering costs can affect market structure, though typically in the direction of facilitating competition. In general, the article argues that the traditional tools and frameworks we use in competition policy are robust to the advent of artificial intelligence as a technology that might need competition authority intervention. However, there are serious questions about how easy it will be for competition policy-makers to use their traditional tools to identify bad intent by firms in a world where business decision-making is driven by algorithm.

AI and Competition Policy

- The ‘it will change everything view’
- The ‘it will change little view’
- The ‘it will be a huge fundamental shift in process’ view

What is Artificial Intelligence?

If you are an economist (2018 view)



AI lowers the cost of prediction

- Implication 1: Tasks that involve prediction will be most affected (radiologists)
- Implication 2: Judgement will become more important

But that seems wrong in 2025...

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AI-generated poetry is indistinguishable from human-written poetry and is rated more favorably

Brian Porter ✉ & Edouard Machery

Scientific Reports **14**, Article number: 26133 (2024) | Cite this article

199k Accesses | **27** Citations | **1696** Altmetric | Metrics

Abstract

As AI-generated text continues to evolve, distinguishing it from human-authored content has become increasingly difficult. This study examined whether non-expert readers could reliably differentiate between AI-generated poems and those written by well-known human poets. We conducted two experiments with non-expert poetry readers and found that participants performed below chance levels in identifying AI-generated poems (46.6% accuracy, $\chi^2(1, N = 16{,}340) = 75.13$, $p < 0.0001$). Notably, participants were more likely to judge AI-generated poems as human-authored than actual human-authored poems ($\chi^2(2, N = 16{,}340) = 247.04$, $p < 0.0001$). We found that AI-generated poems were rated more

Perhaps the better to do this is to be humble and just say

Oxford English Dictionary definition: "the theory and development of computer systems able to perform tasks normally requiring human intelligence"

Digital Economists do agree that AI is a general purpose technology

- This means that like electrification the effects of AI will be spread across the economy
- But also that the process will be slow as real change only change when internal-processes changes in ways that are hard to ancitipate.
- For example, initially electricity was seen to be about illumination but its real economic impact came when factories were electrified.

So we are going to take a technology that is fluid; unpredictable; with no established business model that has not yet evolved, and bring it to competition policy.

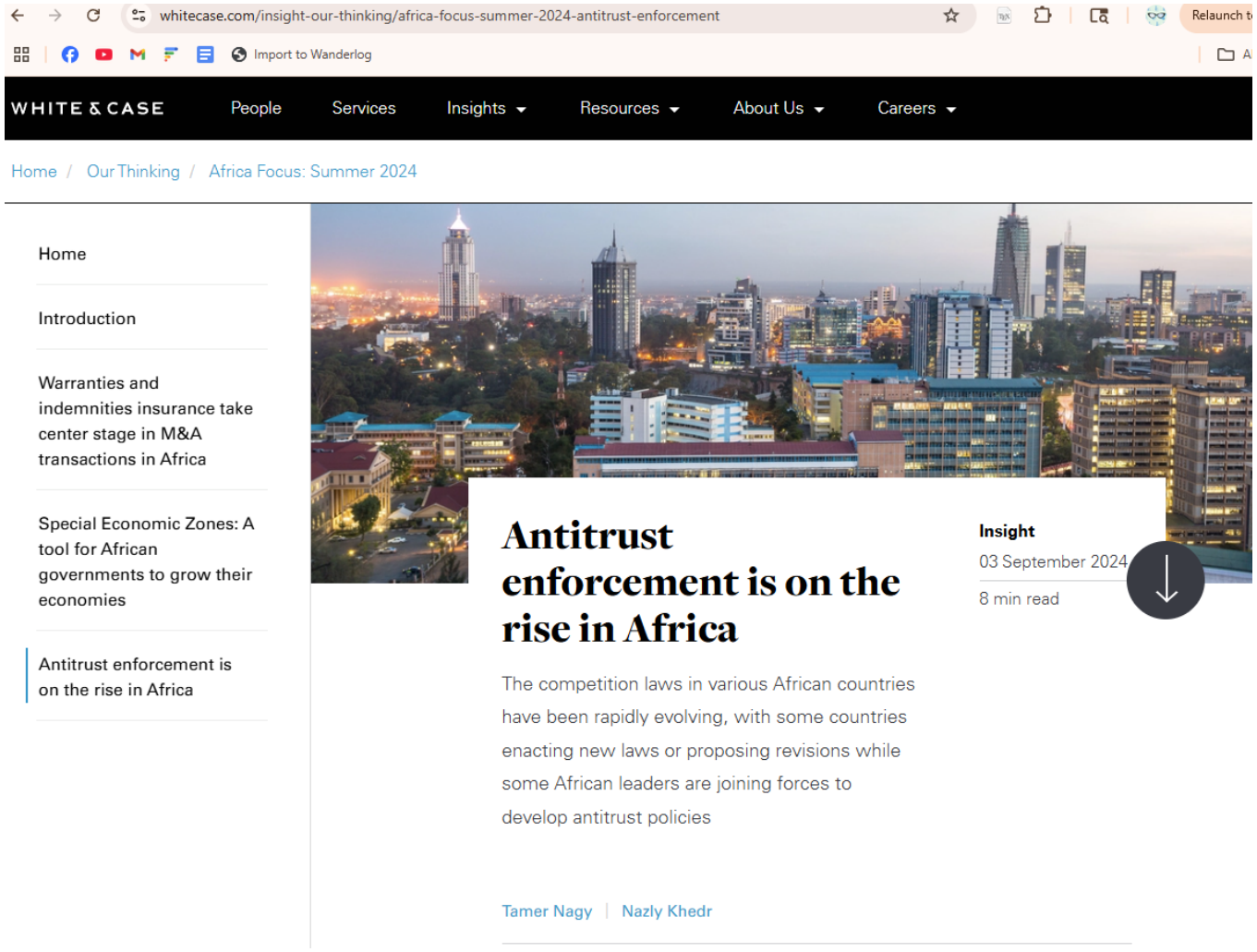
What is Competition Policy?

Competition policy encourages companies to offer consumers goods and services on the most favourable terms. It encourages efficiency and innovation and reduces prices. To be effective, competition requires companies to act independently of each other, and subject to the pressure exerted by their competitors.
https://competition-policy.ec.europa.eu/index_en

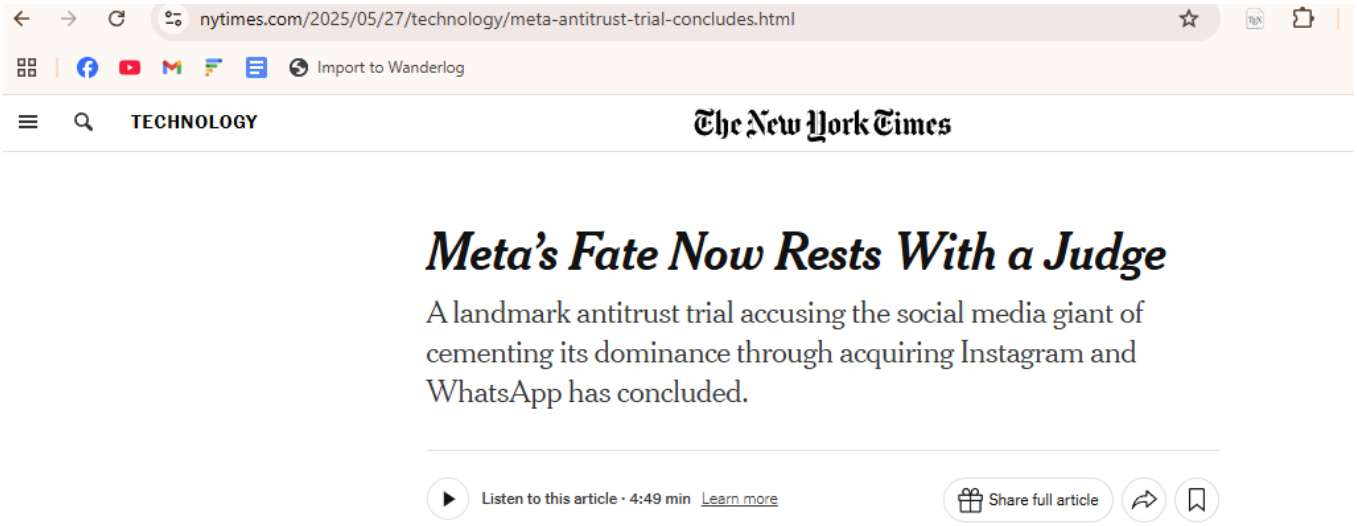
Competition Policy in the US and EU

- Prospective
- Retrospective
- A set of norms around evidence
- A set of norms surrounding how economists analyze competition - often based on the price that customers pay

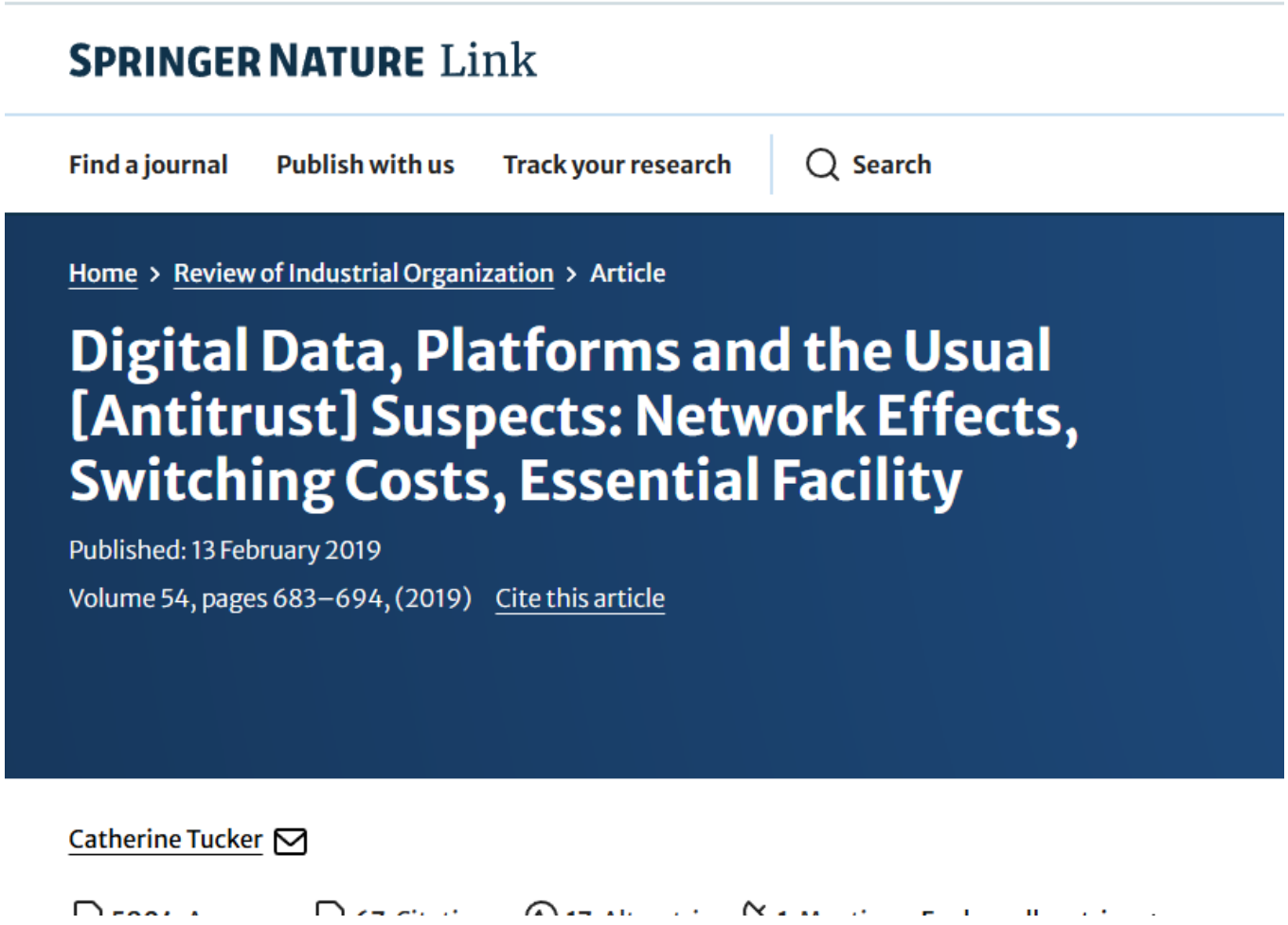
How does this fit into the developing world?



In the end we do know that US based-competition policy will have spillovers to the developing world



Underlying Digital Economics of Competition Policy



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Digital Data, Platforms and the Usual [Antitrust] Suspects: Network Effects, Switching Costs, Essential Facility

Published: 13 February 2019

Volume 54, pages 683–694, (2019) Cite this article

Catherine Tucker

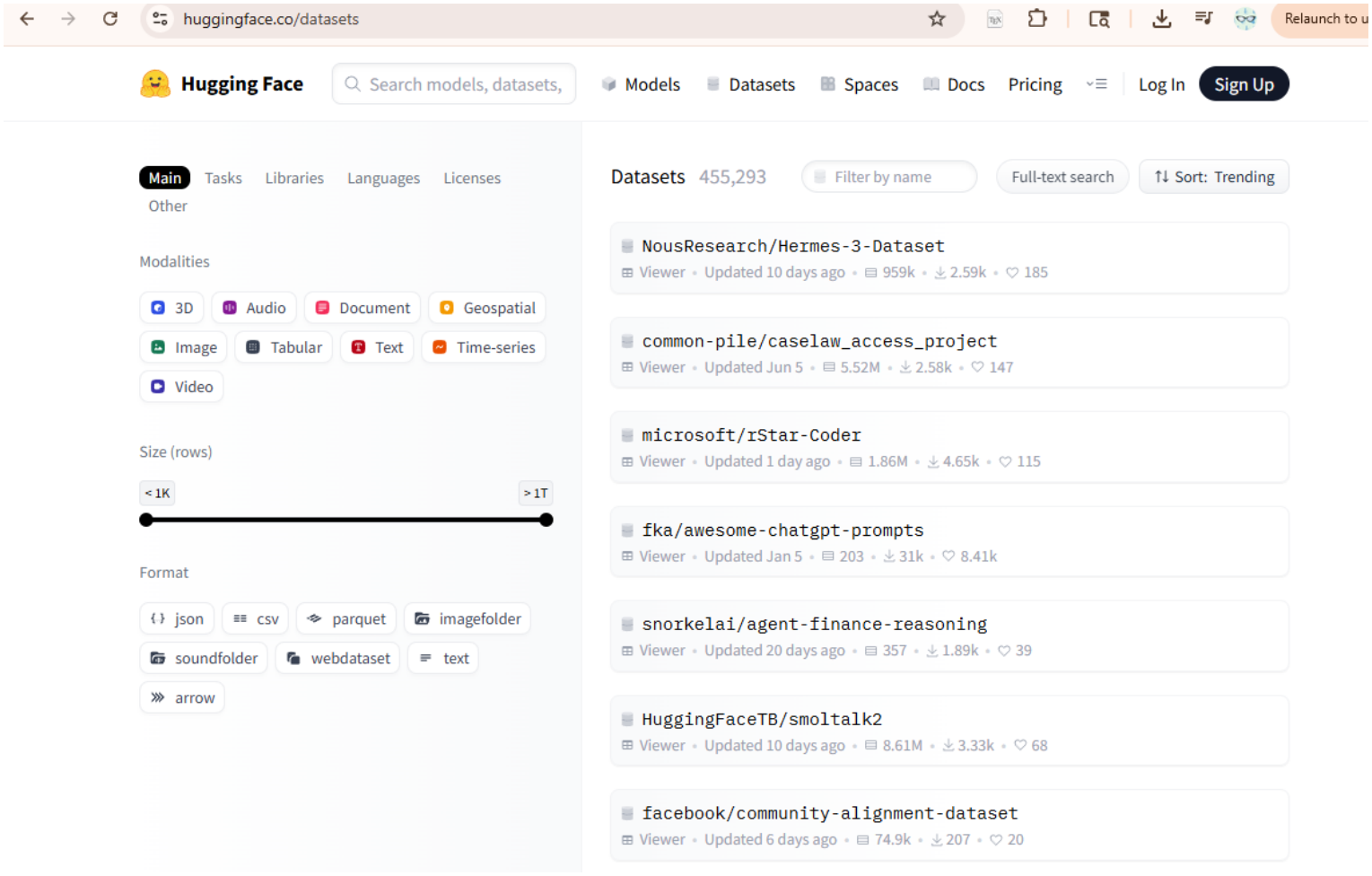
Network Effects

- A reminder that network effects, mean a product gets more valuable as more people use it.
- Most use-cases right now of AI have if anything congestion (rather than network effects)
- I can confidently predict that the term network effects will be used wrongly many times
- Will only like matter when the layer 2 on top of current AI evolves

Switching Costs

- Most digital antitrust cases are really about switching costs or how easy it is to switch between digital ecosystems.
- Will fine-tuning lead to switching costs?
- We know that the moment that switching costs arise in the the digital economy that there are incentives to break them.

Data as an essential facility



So what did I say in the paper

- In the end without a clear monetization model or 'layer 2' built on current AI systems it is hard to really predict antitrust concerns.
- I am concerned we may end up focusing on regulating in the name of competition policy the equivalent of the dial-up ISPs in the early stage of the internet (that is the infrastructure layer)
- What we do know is that the process of antitrust will have to change. We will no longer be able to rely on human expressions of bad-intent towards customers and good intent towards their competitors

Thank you! Questions

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