

Content Moderation and Migration in Social Media: Evidence from Musk's Twitter Acquisition

Iván Rendo (TSE)



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- Increased interest in **online** hateful/extreme/**unsafe content**:
 - E.g. spread of jihadism, bullying, food disorders...
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 - ➡ EU Answer: **Digital Services Act (DSA)**
- Different complementary views on content moderation:
 - “Old Internet” - Duch-Brown’s perspective:
 - ➡ **Constant unsafe content** across time BUT today **good and bad people together**
 - Lefouili & Madio (2022): migration = ↓ impact and enforcement costs
 - Anti Defamation League (ADL) viral video: trading-off **moderation** in Twitter and **migration** to other (hateful, small) environments

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- ➡ What **incentives** do the platforms have to **self-regulate**
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+ **Empirical evidence** through Musk's acquisition of Twitter

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- **Endogenous composition** ~ migration
 - Users' trade-off: network size, quality vs (un)safe content
 - Platform's trade-off: participation vs unsafe content

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2. Policy:

- **Misalignment of incentives** between platform and regulator
- Imposing a **minimal** content moderation intensity (policy):
 - i. Large network effects: always **superfluous**
 - ii. Mid to small network effects: can be **useful**

Roadmap

I. Theoretical Model

- Characterization of the Equilibrium
- Optimal Regulation

II. Empirical Evidence

THEORY

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Rk: I abstract of modelling the utility from creation of content

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...platform (2) just exists with $K_2 = 1$

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3. Agents derive the corresponding payoffs from the composition of the social network

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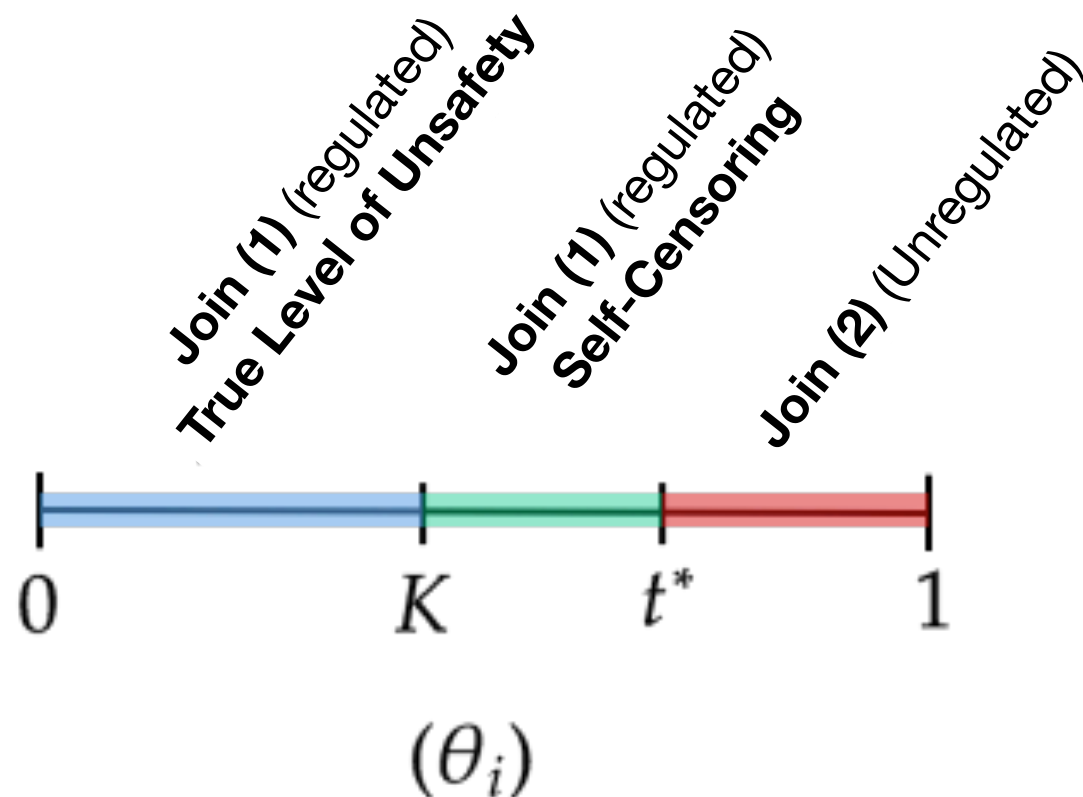
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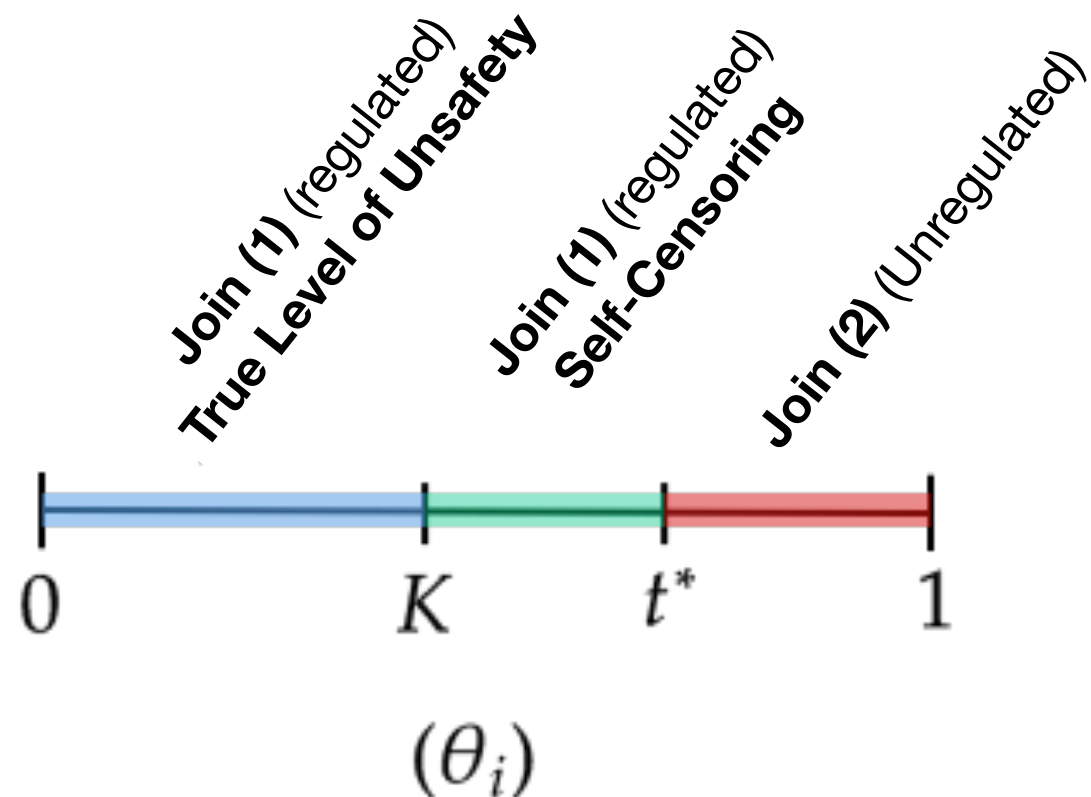


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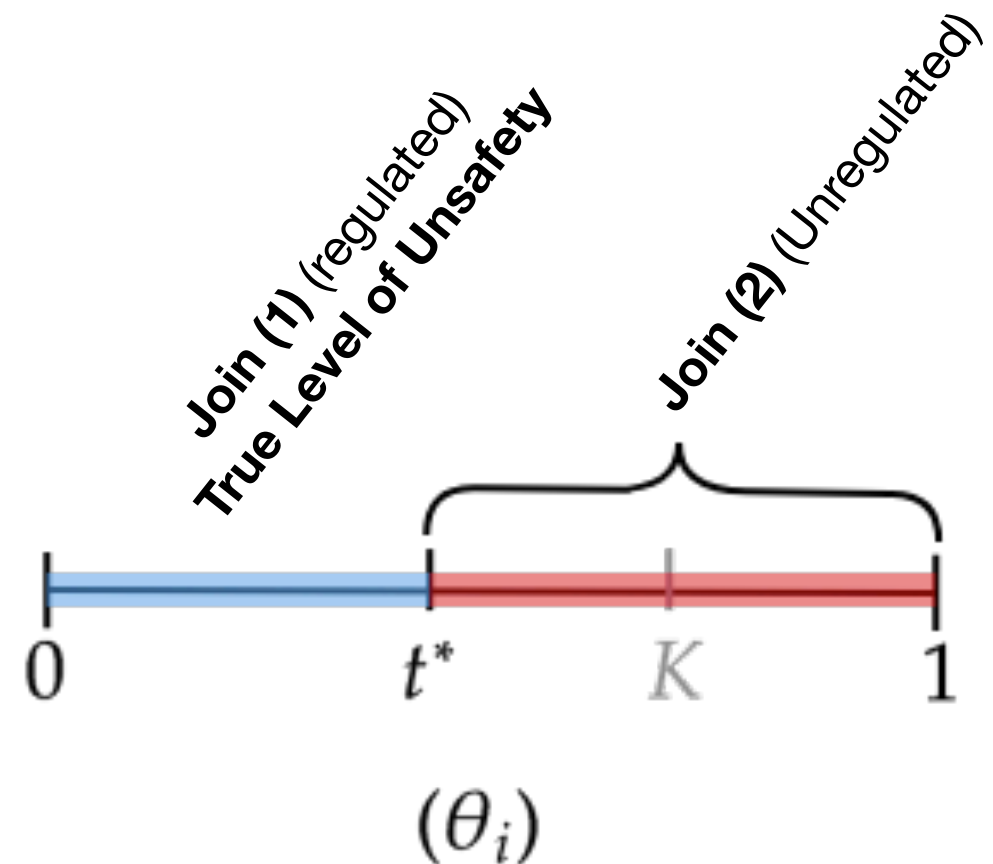
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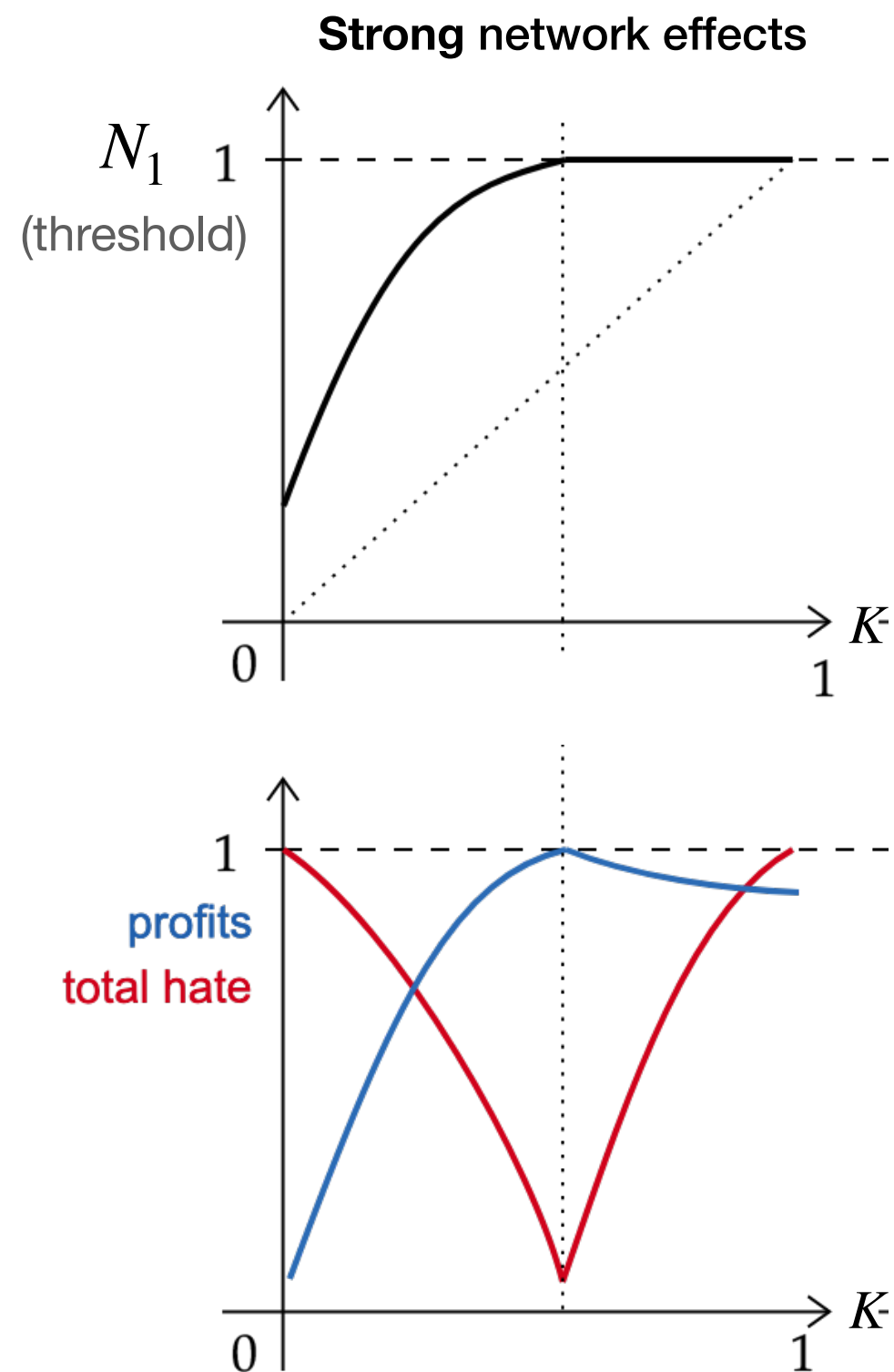
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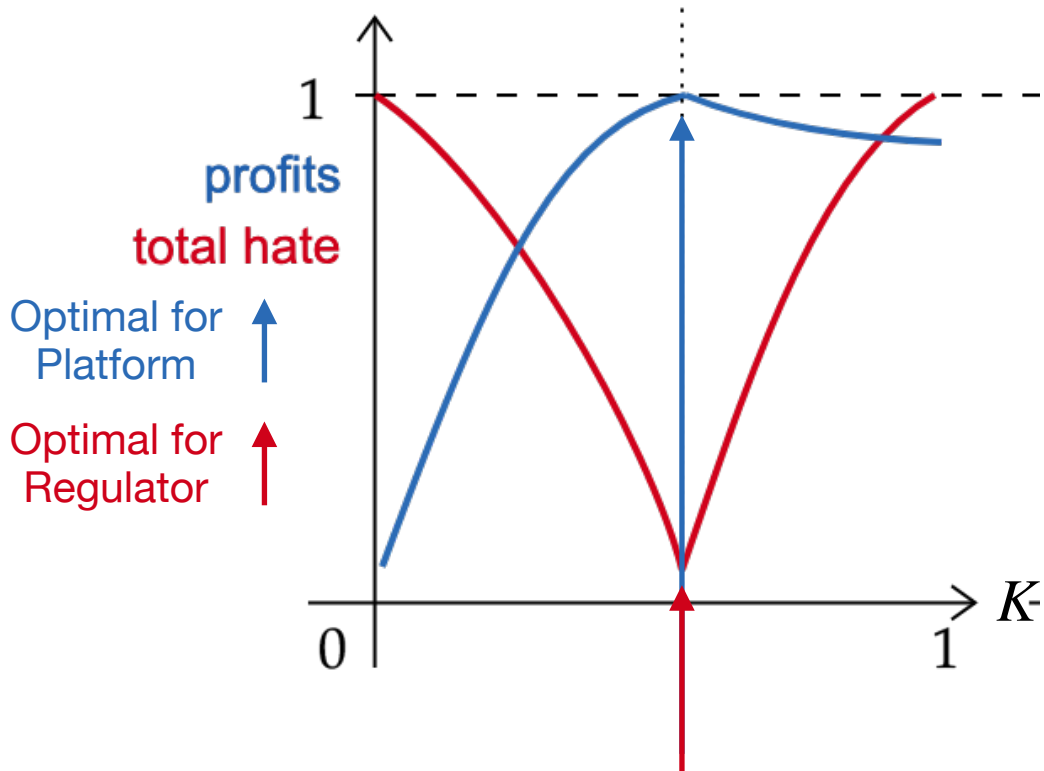
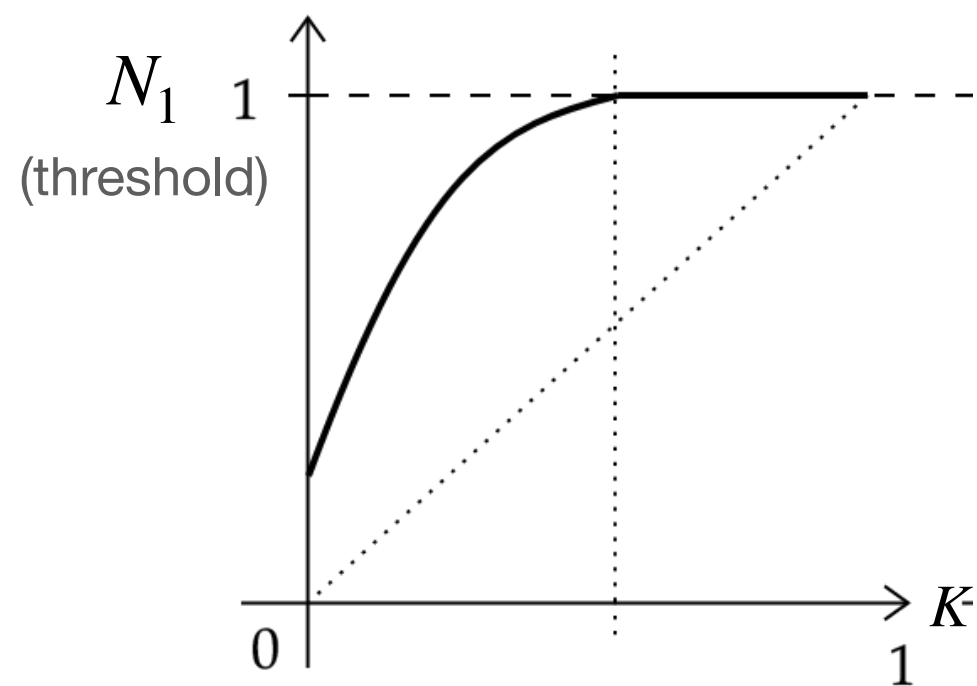


Characterization of the Equilibrium

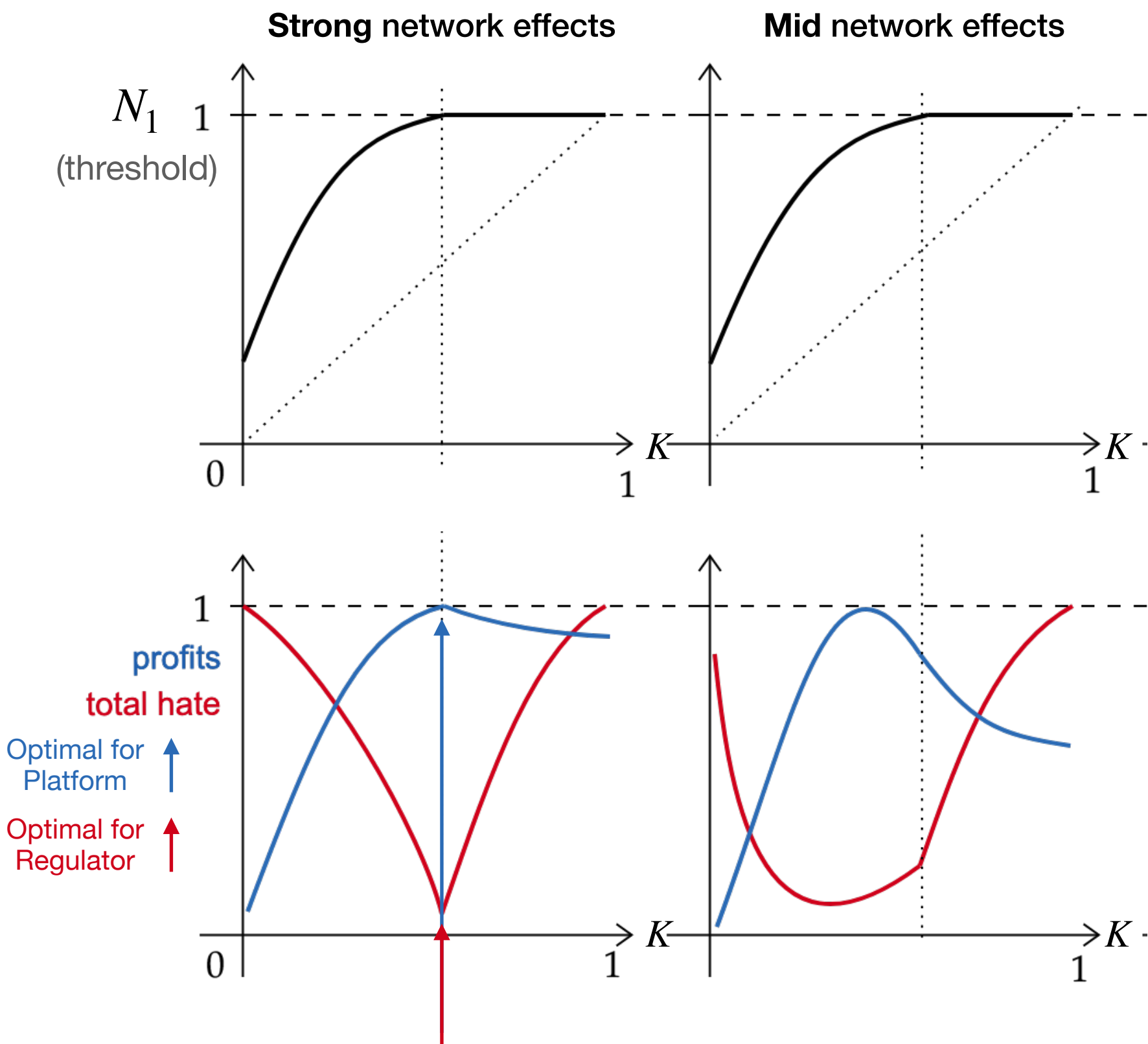


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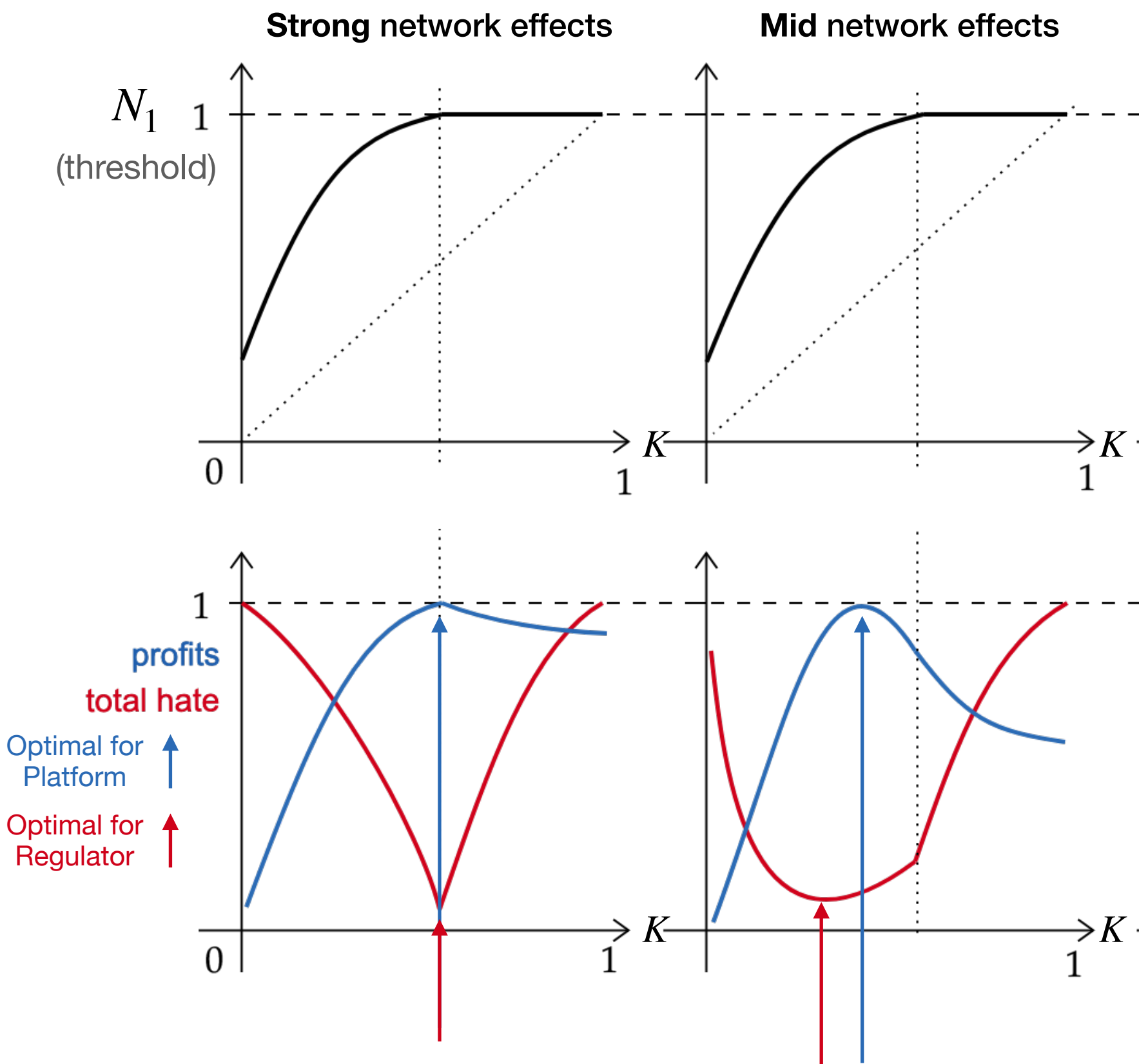
Strong network effects



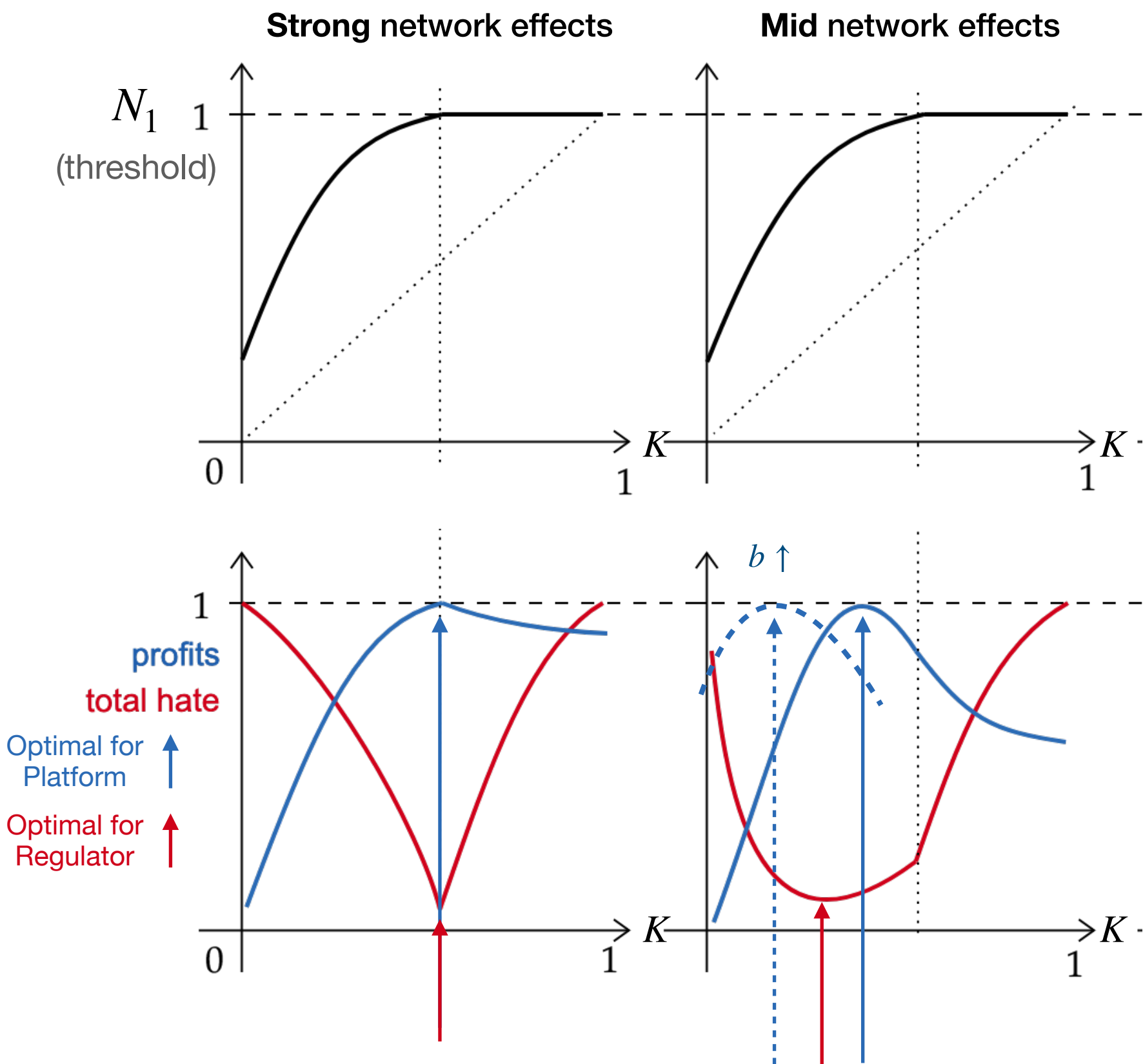
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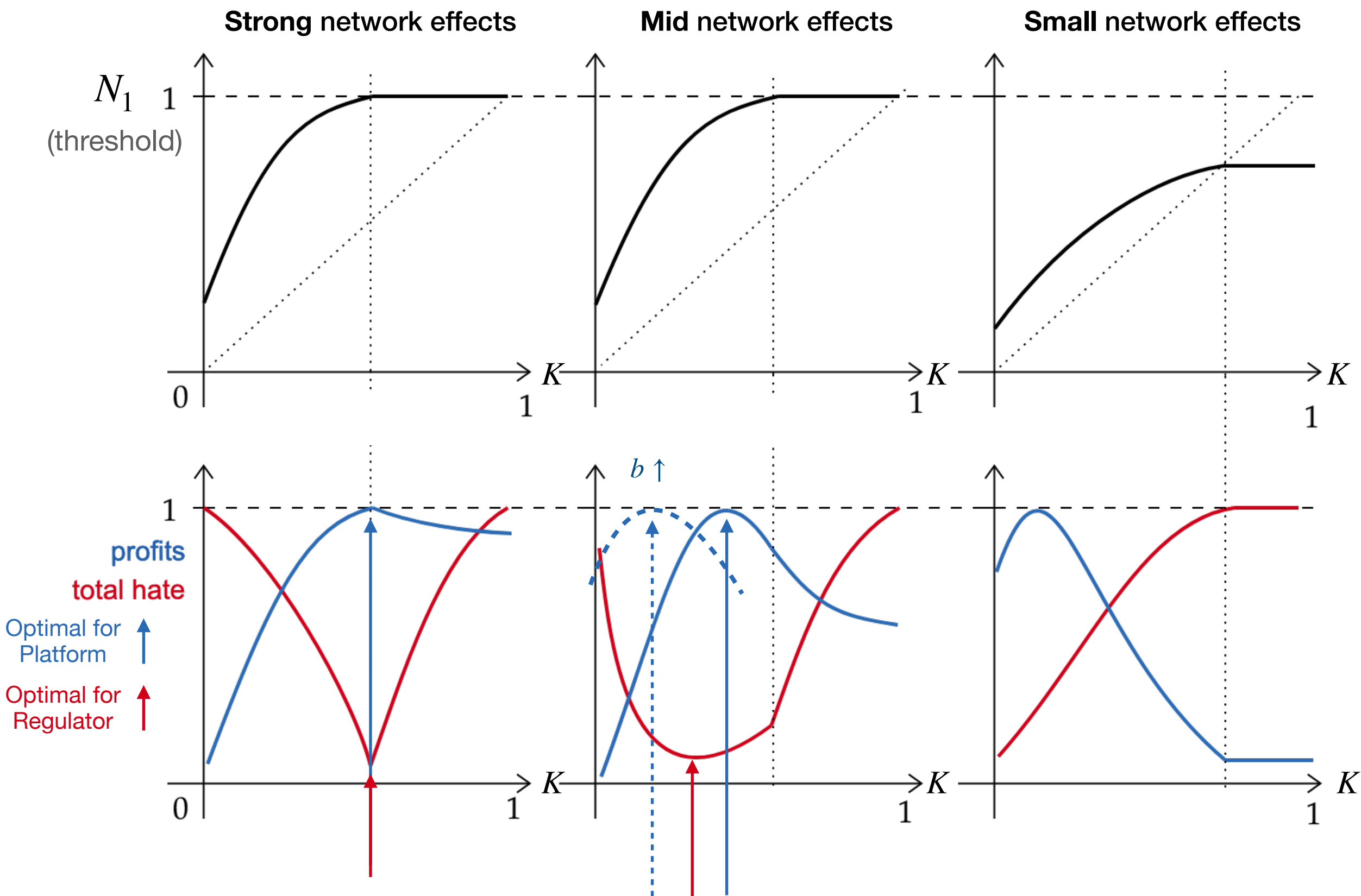
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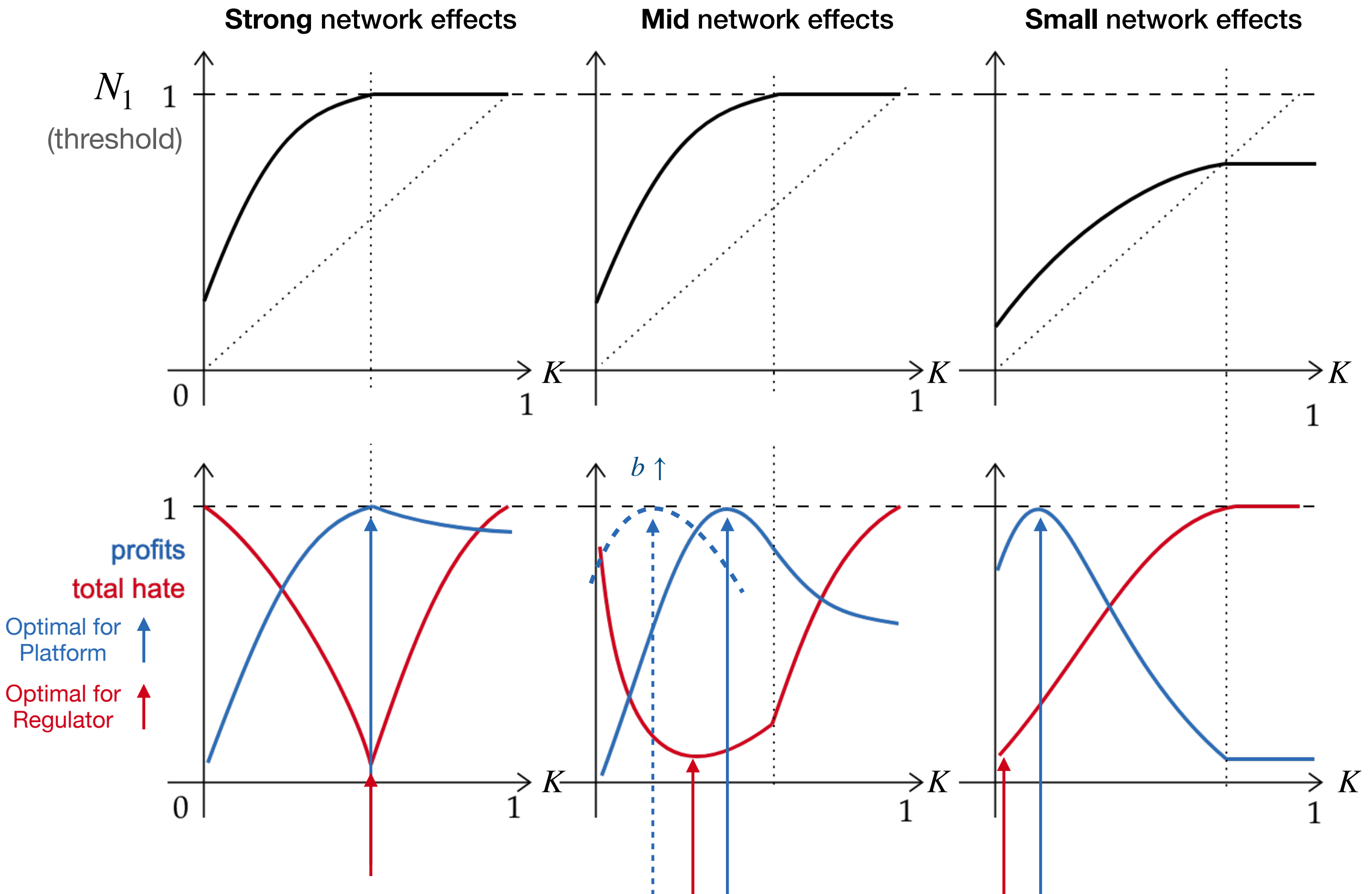
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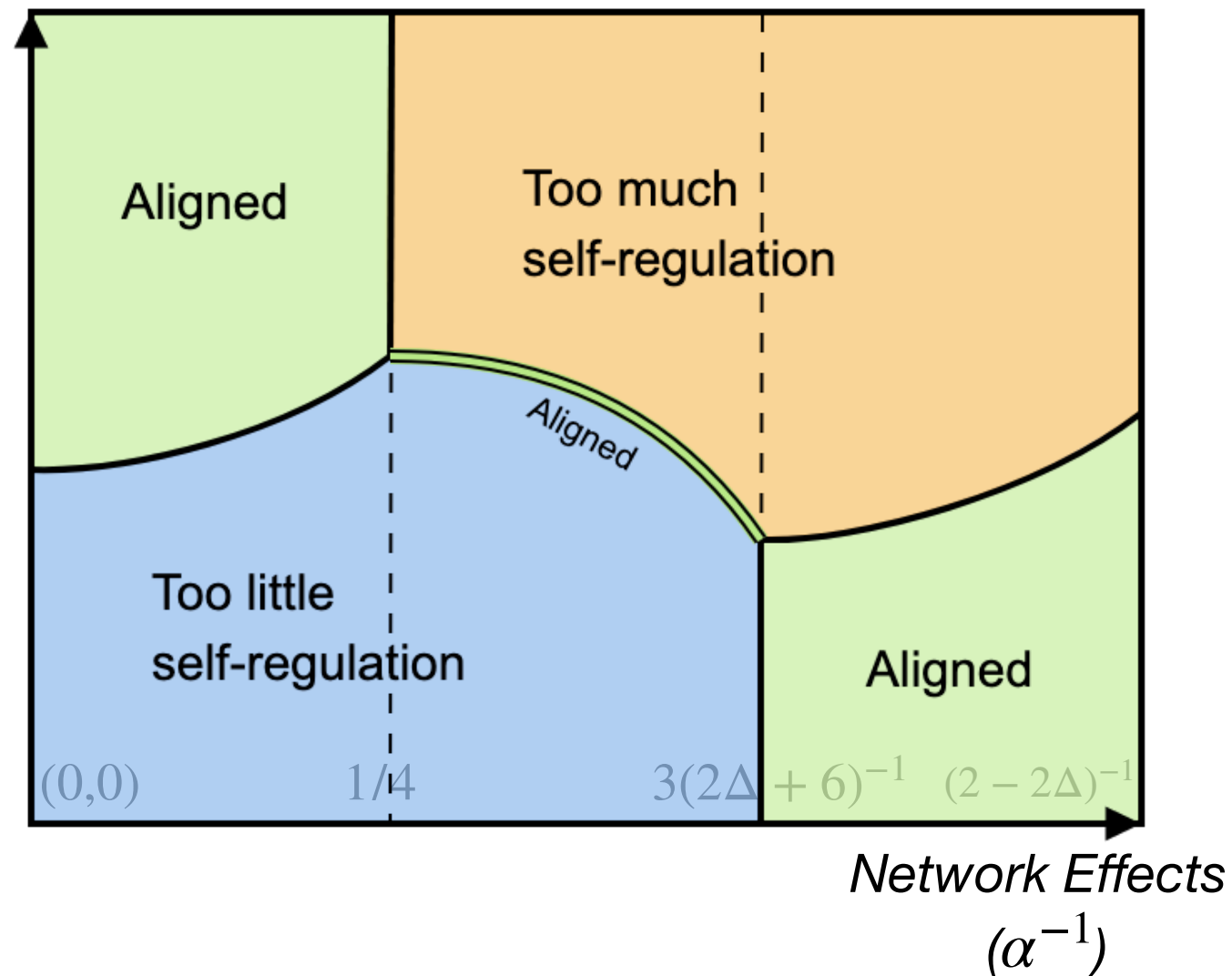


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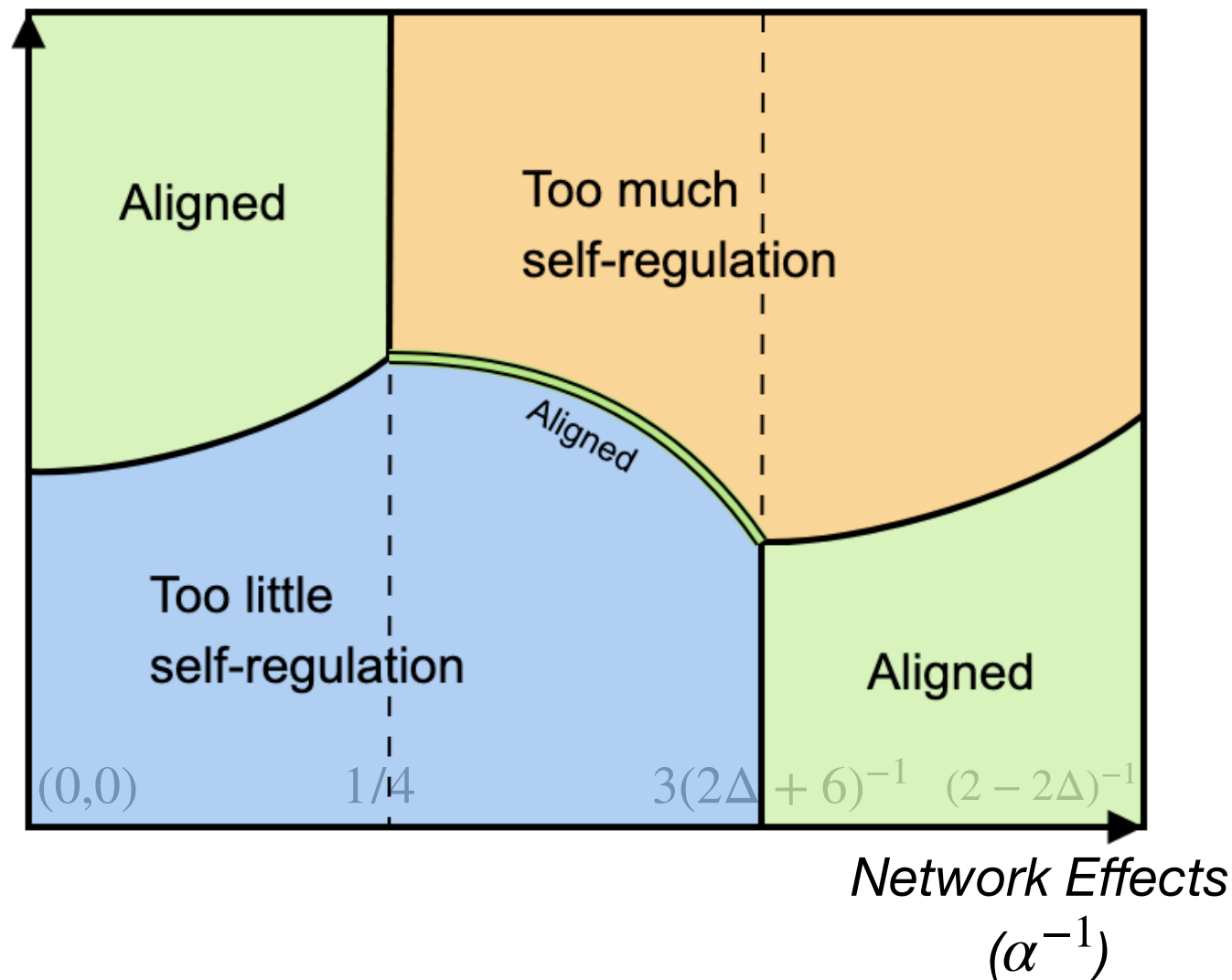
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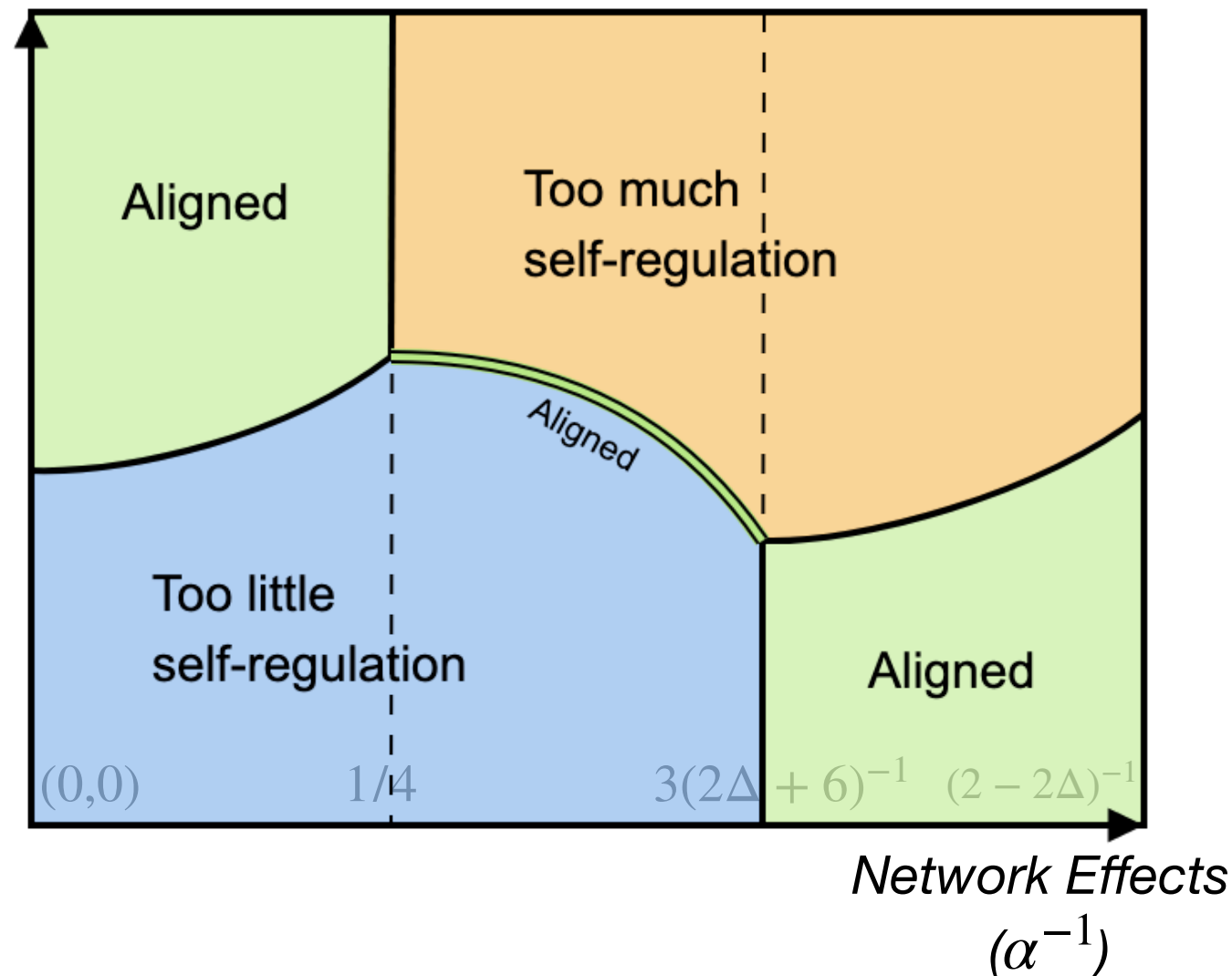
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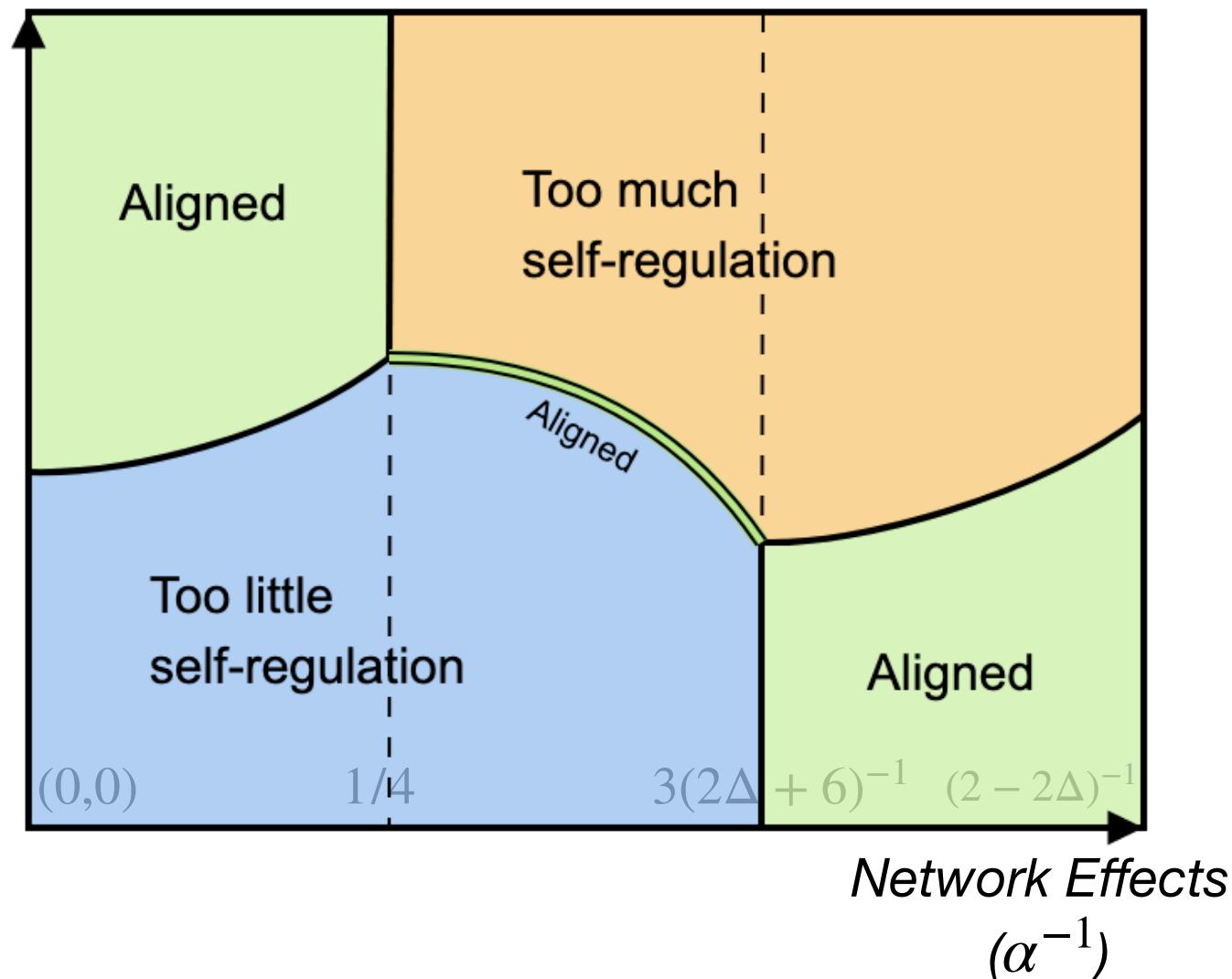
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Orange Area: the policy wouldn't bind as the minimum content imposed is higher than the optimal for the platform

(We saw this in the DSA)

EMPIRICS

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Example

In terms of *toxicity*:

“You are great hahaha” > “You are great”

“Son of a bitch” > “Son of a bitch hahaha”

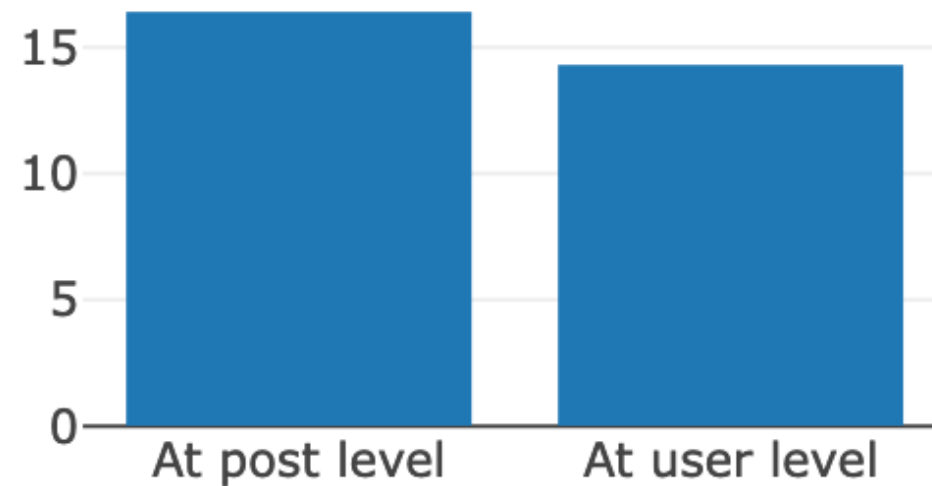
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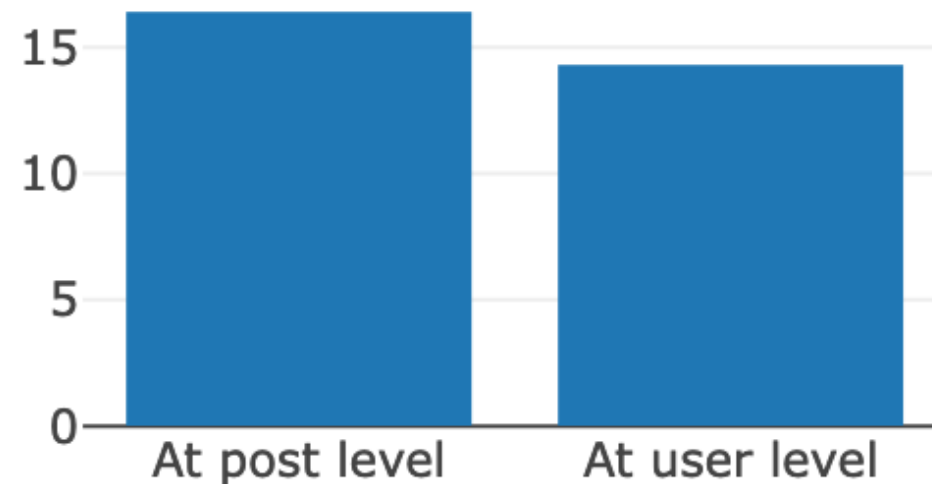
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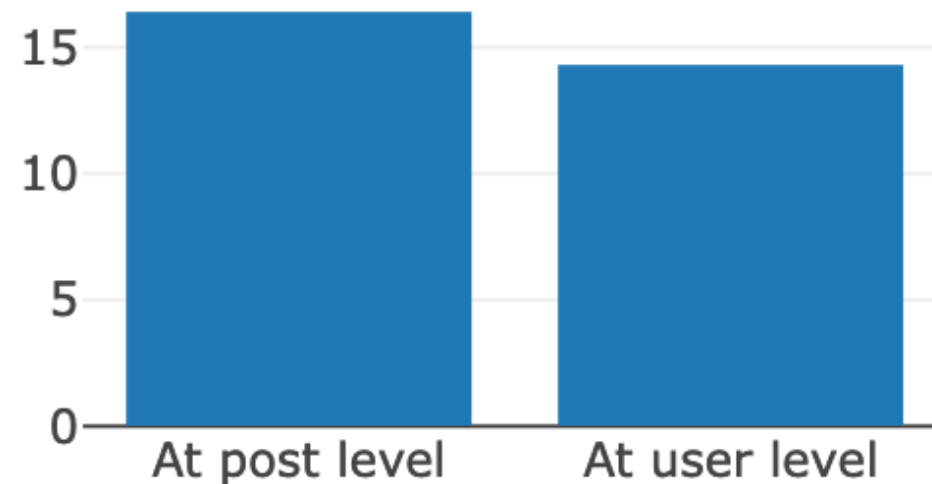


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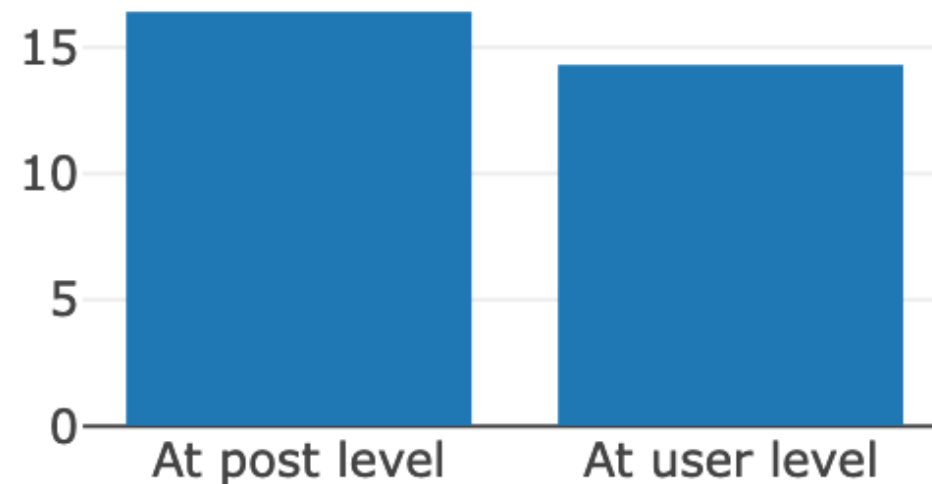
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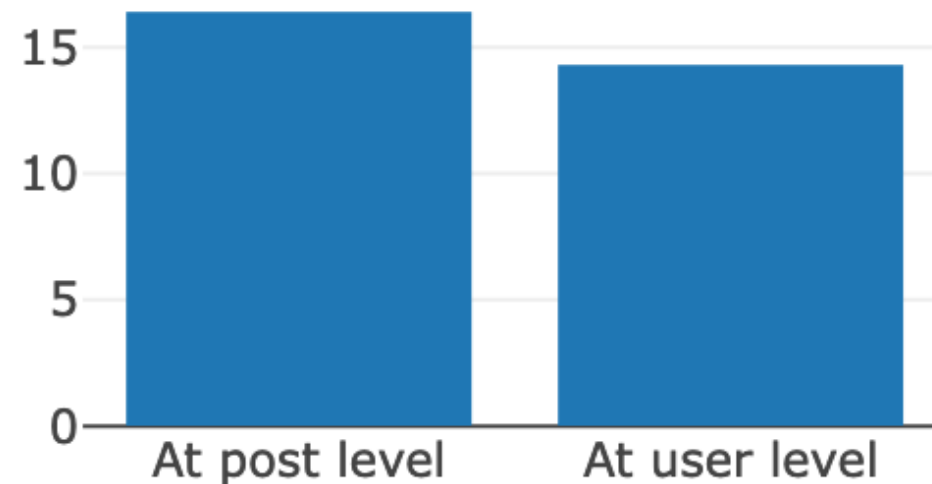
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- Downwards (natural?) trend of the invasion

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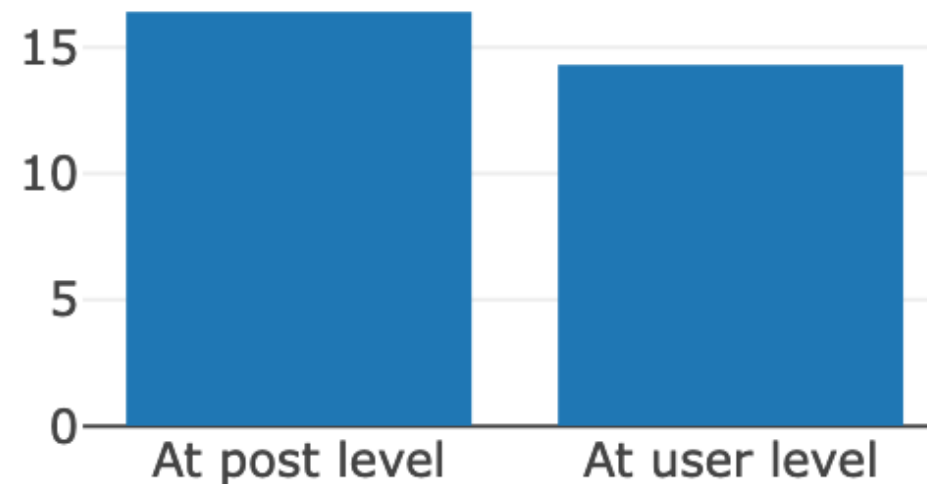
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Review of the “Evidence” I Got:

“Diff-in-diff” 1 month before and after Musk’s acquisition

∇ Toxicity Telegram users - ∇ Toxicity Non-Telegram users



Telegram users’ unsafe content descends less after Musk’s acquisition

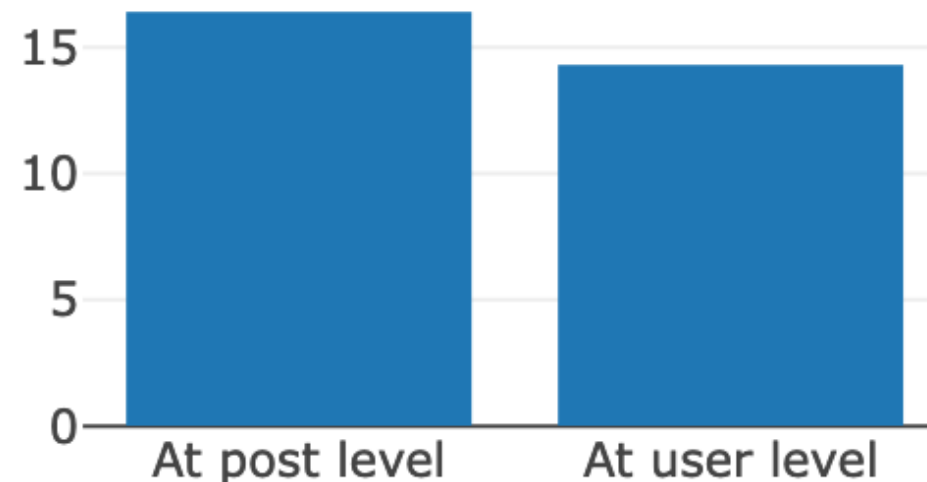
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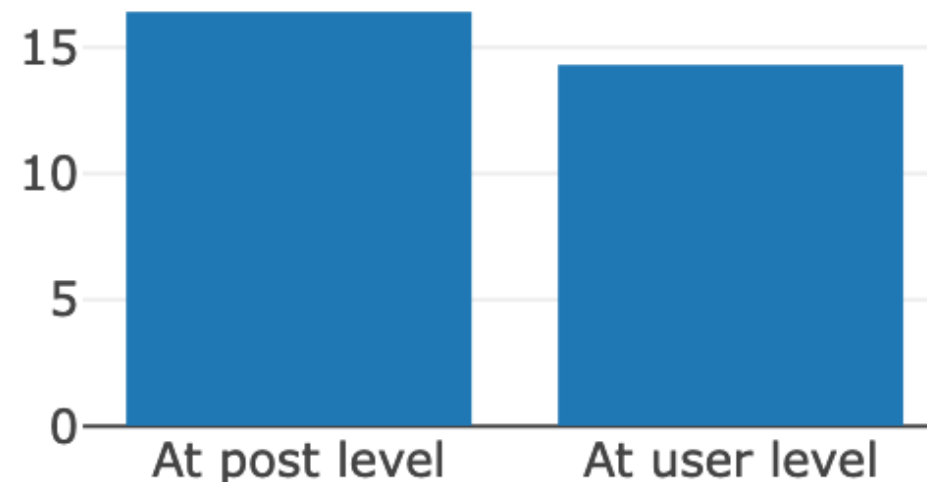
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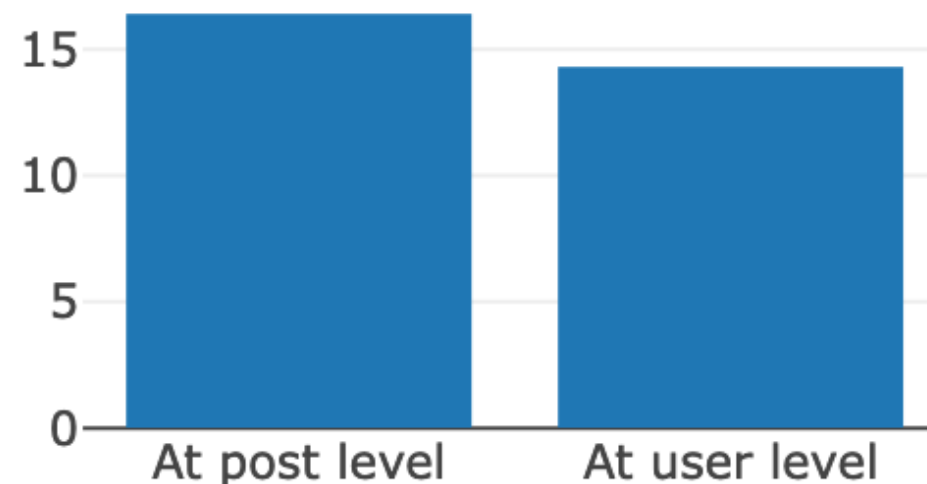
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 - Telegram users in both highest and lowest percentiles of unsafe content
- Large anomalous activity some specific days for non-TG users

(Lot of) Next Steps...

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Difficult model to extend (low analytical tractability)

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- **Match (some) users from Telegram to Twitter**

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 - ↓ strictness of moderation just enough to **deter entry**
 - min (unsafe content) = max (profits) at that point
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More Important:

Merry Christmas !

Appendix

Literature

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- *Closest Paper: Madio & Quinn (2023).*
 - Rich ads model, but exogenous creation of content.
 - Focuses in the monopolist + pricing of ads.
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Empirical Side

- Jiménez Durán (2022), Jiménez Durán, Müller & Schwarz (2022)
- *Some CS Literature:* Schmitz, Muric, et al. (2022 and 2023)

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 - there is a rational for stricter policy if this is the case
 - but could end up “throwing to the lions” to “median” users