News Media Bargaining Codes

CEPR Online Event on News Bargaining Codes

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Motivation

Australian News Media Bargaining Code:

- Good faith negotiations
- Final-offer arbitration
- Important provision: arbitration panel can adjust the final offers if
  "each final offer is not in the public interest"

This ensures that there will be a monetary transfer from the digital platforms to the news publishers.

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We model news media bargaining codes as transfers:

- Abstract away from the details of bargaining
- Helps arbitration panel to design a transfer explicitly or to assess if an offer is in the public interest

Research question and key ingredients

We build a theoretical model of the news market to analyze the **welfare effects of news media bargaining codes**

We design a model that satisfies **four desirable properties**:

  i) Two channels compete for ads: a news website and a social media;
 ii) the social media has higher advertising efficiency (higher "click-through rate", e.g. thanks to better targeting);
iii) the news website creates novel content and can reach consumers by posting news on the social media;
iv) novel news content increases the users' value of the social media, while ads exert negative externalities.

Core mechanism and preview of the results

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more ads $\rightarrow$ additional news content creation $\rightarrow$ increased consumer
surplus $\rightarrow$ more participation on the social media $\rightarrow$ increased profit of
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It is possible to design news media bargaining codes that improve total welfare without harming consumers.

- Only social media is worse off.

Baseline Model

4 types of players: consumers, one advertiser, one news website, one social media platform

- Consumers' utility function $U = v - d(a_{SM} + a_{NW}) + \mathbb{1}_{a_{NW}} \cdot f$
  - $v > 0$: value of user-generated content (e.g., cat videos),

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  - $d > 0$ measures the negative externality exerted by ads a_i, with $i \in \{SM, NW\}$,
  - $f > 0$ is the value of additional news.
- Value of news is either high (f) or low (0)
- Advertising revenue allows the NW to create additional news, so $\mathbb{1}_{a_{NW}} = 1$ if $a_{NW} > 0$ and $\mathbb{1}_{a_{NW}} = 0$ if $a_{NW} = 0$.

Baseline model: Setting

- The social media displays all news content
- Users can consume news either directly on the NW, or go on the SM and be redirected to the NW
  - Generous view toward the SM
  - Extension about different news consumption behavior
- Number of users n is endogenous and linearly increasing in U

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  - Advertisers single-home (in this talk)
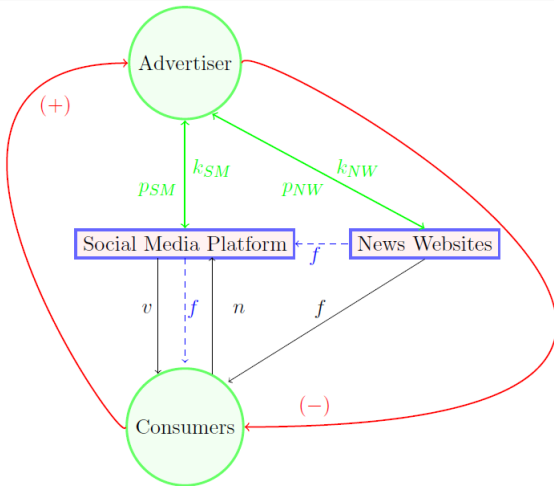
Baseline model: Timing

t=1 *Channels* compete in price in the advertising market (p_i)

t=2 *The advertiser* chooses the allocation of ads (a_i) given the price of ad space,

t=3 *Consumers* decide whether to join the platform or not (n).

Baseline model: Results under laissez-faire

IN THE LAISSEZ-FAIRE EQUILIBRIUM:

- If the value of news creation is low ($f \leq \bar{f}$), the advertiser allocates all ads to the social media.
- If the value of news creation is large ($f > \bar{f}$), the advertiser allocates all ads to the news website.

Results under news media bargaining codes

We model the news media bargaining code as a regulation

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FIRST MAIN RESULT: **The news media bargaining code increases total welfare without harming the consumers.**

- TW is higher for $f \leq \bar{f}$ thanks to additional news creation;
- TW is higher for $f > \bar{f}$ thanks to the efficiency of social media;
- Consumers and advertiser weakly better-off.

Endogenous News Quality

The news website chooses its additional news quality, f, given costs $\frac{cf^2}{2}$.

t=0 *Transfer* scheme announced (if any)

t=1 *Channels* compete in price in the advertising market (p_i)

t=2 *The advertiser* chooses the allocation of ads (a_i) given the price of ad space,

t=3 *News website* chooses news quality (f),

t=4 *Consumers* decide whether to join the platform or not (n).

Endogenous News Quality - Laissez-faire

In the laissez-faire equilibrium:

- If the cost of news creation c is sufficiently low, the advertiser allocates its ads to the NW, and the equilibrium level of news creation f is positive.

- If the cost of news creation c is high, the advertiser allocates all ads to the SM and there is no additional news creation in equilibrium.

Second main result: **In the laissez-faire regime, the equilibrium level of news creation is always socially suboptimal.**

- Market failure: the news website and the advertiser do not fully internalize the positive externality of news creation

- Room for policy interventions such as the news media bargaining codes

Endogenous News Quality - Policy intervention

We compare two designs for the news media bargaining codes: lump-sum transfer vs. transfer proportional to news quality.

WITH LUMP-SUM TRANSFER:

- Generally, such a transfer is ineffective: leaves welfare unchanged
- It can backfire if the cost of introducing the regulation (not modeled) is high

THIRD MAIN RESULT: **The proportional transfer leads to more news creation and higher consumer surplus compared to both the lump-sum transfer and the laissez-faire regime.**

- It is always possible to design a welfare-improving news media bargaining code
- Rule tying the level of transfers to news quality is preferable

Extensions and robustness checks

1. **Competitive advertisers:** results are richer but qualitatively similar.
   ▸ Competitive advertisers

2. **Multihoming:** main results hold under advertiser multihoming.
   ▸ Multihoming

3. **Voluntary payments from the SM to the NW:** these payments may be positive, but socially suboptimal. ▸ Voluntary payments

4. **Different ad pricing mechanism:** main results hold under simple keyword auctions. ▸ Auctions

5. **Different news consumption behavior:** main results hold when consuming a snippet of the news on SM brings utility $\theta \cdot f$ with $\theta \in (0, 1)$. ▸ Snippets

6. **Addressing the most common critique of News Media Bargaining Codes:** comparison with a market without SM. ▸ Critique

Related Literature

- **Regulation of large digital platforms:**
  - Anderson and Bedre-Defolie, 2022; De Chiara et al., 2022; Cunningham et al., 2021; Hagiu et al., 2022; Hua and Spier, 2023; Johnen and Somogyi, 2022; Lefouili and Madio, 2022; Raffeian and Yoganarasimhan, 2021
- **Two-sided media markets:**
  - Ambrus et al., 2016; Anderson and Coate, 2005; Anderson et al., 2017; Anderson and Peitz, 2020; Angelucci and Cagé, 2019; Athey et al., 2018; Gabszewicz et al., 2004; Peitz and Reisinger, 2015; Peitz and Valletti, 2008
  - **Closest to** de Cornière & Sarvary, 2022. Mirror approach: focus on consumer attention vs. ad allocation
- **Link tax:**
  - Qualitatively different from news media bargaining codes
  - Athey et al., 2017; Calzada and Gil, 2019
- **News media bargaining codes:**
  - Freimane, 2023: empirical analysis of scraped data.

Conclusion

- We analyze the welfare effects news media bargaining codes.
- Externality from additional news creation not fully internalized $\rightarrow$ The equilibrium level of news production may be suboptimal.
- News media bargaining codes help to resolve this problem:
    - They never harm consumers.
    - They are always welfare-improving.
    - They only harm the social media company, not unintended.
- Limitations:
    - One single NW. More competition $\rightarrow$ even more need for financing. But cannot have substitution as in Freimane (2023).
    - Incentives for SM to go dark and secrecy of contracts (follow-up work in progress).
    - Empirical challenges of estimating parameters and the cost of regulation.

THANK YOU FOR YOUR ATTENTION!

Multihoming advertiser

- Assume that the advertiser has a fixed budget to split between the NW and the SM.
- With exogenous news value:
  - In the baseline, the trade-off breaks down.
  - The main results hold in a more realistic setting when a non-negligible amount of ads on the NW is necessary for additional news creation.

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  - The main results hold in a more realistic setting when a non-negligible amount of ads on the NW is necessary for additional news creation.
- With endogenous news value:
  - News creation is socially suboptimal, as in the baseline.
  - News media bargaining code is always welfare-improving.

Voluntary payments

- Opponents of the news media bargaining codes: in some countries, SM companies such as Google and Facebook have been financing NWs on a voluntary basis
  - Meta Journalism Project and Google News Showcase
- The baseline model does not allow this
- We allow the SM to make a payment proportional to news quality to the NW in stage 0
  - The transfer level is sometimes strictly positive.
  - However, it is always below the socially optimal level.
  - Room for policy intervention

▶ Back robustness

Competition in the Advertising Market - Setting

- Assume two advertisers are competing in the market for ad placement.
- It is now possible to have four market configurations (instead of the two in the baseline model):
  - Both advertisers choosing the NW: (NW,NW)
  - Both advertisers choosing the SM: (SM,SM)
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- In equilibrium there exists a threshold $\tilde{f}$ such that:
  - For $f < \tilde{f}$, **all the ads are placed on the social media.**
  - For $f \geq \tilde{f}$, **SM has an incentive to let the NW to get some (not all) of the ads**, as such a strategy allows new valuable content to be generated. As if SM and NW coordinated on prices.
  - Both advertisers choosing the NW can never be an equilibrium.

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  - Both advertisers choosing the NW can never be an equilibrium.
- **Most results are unchanged qualitatively.**

Competition in the Advertising Market - Laissez-faire

Misalignment between SM's private interests and total welfare:
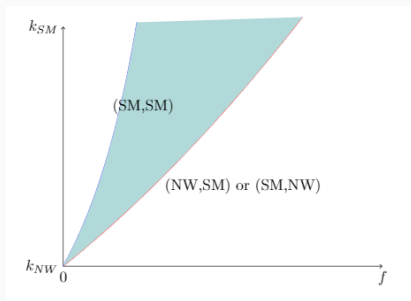
SM is willing to coordinate to the right of the **orange curve**, whereas the policy-maker prefers the two channels splitting the market to the right of the **blue curve**.

MAIN RESULT: *There always exists a parameter region where the level of novel news creation is socially sub-optimal under laissez-faire.*

Best-of-both-worlds scenario thanks to the news media bargaining code under competition in the ad market as well:

- The news media bargaining code always leads to a higher total welfare without harming the consumers.

- In particular, the transfer can be used to align the SM's and policy-maker's incentives, as well as to improve efficiency.

- Even if there is no misalignment, passing a news media bargaining code will not harm neither consumers nor total welfare.

▶ Back robustness

A potential Pareto-improvement

COROLLARY: *When news creation is relatively valuable, i.e. for $f > \bar{f}$, a Pareto-improving level of transfer exists if $k_{SM} > \frac{2(f+v)^2 k_{NW}}{(f+v)^2 + v^2}$. In all other cases, the increase in TW is to the detriment of the social media company.*

- When SM is a much more efficient channel than NW in generating revenues from ads, the policy can be Pareto improving.
    - Efficiency gains and content creation can offset the loss of SM resulting from the transfer.
- In all other cases, the policy works "naturally", as a redistribution from the SM to the NW.

Discussion: Pareto improvement result

IF IT IS A PARETO IMPROVEMENT, WHY IS FACEBOOK (AND OTHER DIGITAL PLATFORMS) AGAINST IT?

i It is a slippery slope: **Any regulation is too much regulation**... it may leads to other regulations in the future;

ii Not only news websites: other third parties may claim **rights to compensation** for content creation (e.g., celebrities).

▸ Back results

Robustness: Different ad pricing mechanism

- In the baseline: Bertrand-competition with vertically differentiated products. This may be an overly benevolent view towards SM.
- In this extension, SM can run a second-price auction.
- Two advertisers compete for two ad spaces on SM, with advertising on NW being an outside option
- Profit of the SM is indeed higher, profit of the advertisers indeed lower than under Bertrand-competition
- Prices become monotonic in the value of news
- But main result still holds: news media bargaining codes leads to an improvement in total welfare.

▶ Back robustness

Robustness: Different news consumption behavior

- In the baseline: if there is news creation, consumers of SM click and consume the ads on NW, generating ad revenues for the NW

- In reality, consumers may derive some utility simply from reading the headlines and snippets on SM

- In this extension, they derive a utility $f\theta$ from reading the snippet on the SM, and the full f when accessing NW directly.

- Explicit modeling of business-stealing effect

- Results are richer (and depend heavily on θ) but qualitatively similar to the baseline.

- New equilibrium region: for low f and/or high θ all consumers use SM, no ads on NW irrespective of prices so the SM captures all the surplus of the advertiser.

Discussion: Addressing the most common critique

- News websites already benefit from the presence of SM as it guarantees them a much broader audience. Thus no need for any policy intervention compensating NW.
- We compare our baseline results with a market without SM.
- It may be true that NW are better-off in the presence of SM due to the demand expansion effect, especially for large f.
- But the news media bargaining code is socially efficient even in that case
- It is true that the regulation is not necessary if we are in that parameter region, but in sense the error is not too large: it benefits society as a whole.

▸ Back