

Social Media and Institutional Externalities

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Externalities

- Four categories of externalities generated by media production (Baker 2002)
 - Deterrence and motivation, by placing behavior in the shadow of media
 - Real economies, in which various media types benefit from scale and proliferate
 - Fact-searching, in which the optimal proliferation of media optimizes economic costs of discovering truth
 - Discursive quality, by which an optimal level of civility in content leads to efficient levels of compromise and politicking

Standard Model of Externalities

- Firms produce an amount x of service or good using $c(x)$ units of the numeraire y
- Production generates x units of pollution, so that $P(x) = x$
- Consumers hold wealth Z and experience quasilinear utility in the form $u(x) + Z - d \cdot P(x)$, where d is marginal damage of pollution
- Firms max $px - c(x)$ and consumers max $u(x) + Z - px$, ignoring pollution, since impact of their consumption on generating it is negligible
- Demand and supply satisfy $u'(x^D) = p = c'(x^S)$
- At equilibrium price, $PMB = PMC$: $u'(x^D) = c'(x^S)$, which is Pareto inefficient

- Standard result shows that a Pareto-optimum can be achieved by reducing production
- Welfare: $W = (px - c(x)) + (u(x) + Z - px) - d \cdot P(x)$
- Small change Δx

$$dW_\alpha = (p - c'(x)) \Delta x = 0$$

and if $\Delta x < 0$, then

$$dW_\gamma = (u'(x) - p) \Delta x - d\Delta x = -d\Delta x > 0$$

- Welfare is increased if production is decreased: FWT fails

Truth-seeking and Fake News

- Proliferation of content generally reduces the economic costs of searching for factual information, so long as the content is true
- Search costs are unequivocally higher when there is more than one version of a fact
- However, within a polarized society, one group's disutility in increased search costs may be simultaneously offset by another group's utility in factual secrecy and indeterminacy

Subjective value of truth exposure

- Many political issues such as immigration, health care, climate change, and corruption within political parties are not resolved exclusively on the basis of rational deliberation
- Loyalty to a group, idea, or longer-term goal matters (in addition to truthful facts) for the average citizen (Bloom 2016; Fernbach et al. 2013)

Polarized Welfare

- Let polarized welfares of citizens D and R be:

$$W(x_D) = u(x_D) + Z - px - d \cdot P(x_D) + d \cdot P(x_R)$$

$$W(x_R) = u(x_R) + Z - px - d \cdot P(x_R) + d \cdot P(x_D)$$

- Externality terms cancel out, and total welfare is given by:

$$W = (px - c(x)) + (u(x_D) + u(x_R) + Z - px)$$

- Because political outcomes are zero-sum, the initial allocation of content is Pareto-efficient, and a perturbation Δx does not violate FWT:

$$dW_\alpha = (p - c'(x)) \Delta x = 0$$

and if $\Delta x < 0$,

$$dW_\gamma = (u'(x_D) + u'(x_R) - p) \Delta x = 0$$

Institutional Externalities

- If one accepts that exposure of truth is subjective, then production of fake content does not generate negative externalities of increased costs to fact-searching
 - Consistent with the economic theory of First Amendment jurisprudence, which ascribes a “high value” to political speech
 - “The economic argument for freedom of political speech is [...] the right to disseminate information that may affect how people vote in the next election.” (Posner 1986)
- Of the four categories articulated in Baker (2002), only discursive quality could provide an economic justification for regulation
- However, one can identify an externality in institutional decay, which is among other things, a result of not enforcing existing law

Constitutionally Settled Law

- German Network Enforcement Act of 2017: criminal liability for platforms that, after receiving notice, fail to remove “manifestly unlawful” content within 24 hours or “unlawful” content within 7 days
- Unlike U.S., German criminalization of hate speech is constitutionally settled law; unenforcement of that law generates a negative externality

Enforcement

- In U.S., 11 C.F.R. § 110.20 prohibits contributions, donations, expenditures and disbursements solicited, directed, received or made directly or indirectly by or from foreign nationals in connection with any election (includes contributions to electoral communications and advertising)
- Inasmuch as fake messaging involves criminal hate-speech (in Germany) or is supported by foreign nationals (U.S.), unenforcement of either generates a negative externality

Polarized Welfare Revisited

- Let unenforcement of constitutionally settled law, a reflection of institutional decay, be given by $E(x) = x$, so that polarized citizens experience utility in the form $(u(x_D) + u(x_R) + Z - px) - e \cdot E(x)$, where e is the marginal damage of institutional decay
- Negative externality terms of increased fact-searching cancel out as before, and welfare can be given by

$$W = (px - c(x)) + (u(x_D) + u(x_R) + Z - px) - e \cdot E(x)$$

- As a result, the initial allocation of content is Pareto-inefficient and a reduction Δx increases welfare in violation of FWT:

$$dW_\alpha = (p - c'(x)) \Delta x = 0$$

$$dW_\gamma = (u'(x_D) + u'(x_R) - p) \Delta x - e \cdot \Delta x = -e \Delta x > 0$$

Discursive Quality (Intuition)

- Can discursive quality and conflictual rhetoric be characterized as a negative externality?
- If discourse is partisan, then polarized groups receive utility from inflammatory deliberation and influencing political outcomes
- Narrow band for regulation: two-sided content production
 - People or entities who create content (including purchase of advertising) on both sides of an issue generate no “income” from deliberation and influence
 - Only generate discursive conflict
 - May already be prohibited by other law

Distributor Liability

- Should platforms be subject to liability for distributing socially costly content?
 - Cost of imposing sanctions matters (Shavell 2003)
 - Imposing sanctions against traditional producers, including advertisers, is cost-effective if magnitude of deterrence is high and sanctioning effort is low
 - For many dispersed user-producers, the reverse may hold, i.e. magnitude of deterrence is low and sanctioning effort is high
 - Platforms are in best position to police producers, especially user-producers
 - *Cf. Stratton Oakmont, Inc. v. Prodigy Servs. Co.*, 1995 WL 323710 (N.Y. Sup. Ct. 1995) (by utilizing automated screening software, Prodigy exercised and received benefits of editorial control; therefore it is liable)

Current Law

- U.S. Communications Decency Act § 230 (1996) abrogated *Stratton* and provides for platform immunity
 - Encourages platforms to be good citizens and remove offensive material, because if they do, they will not be held liable as distributors
 - Lower expected liability nurtures platform growth (broader benefits of free-speech and e-commerce)
- German Network Enforcement Act of 2017 provides for notice-based criminal liability of platforms
 - Loosely tracks *Restatement* approach to communication tort liability for distributors, which attaches liability to distributors “who know or should have known” of defamation

Realist Approach

- Platforms do not produce content per se (research, writing, photography, video, etc.), but they produce impressions
- Users are faced with nearly limitless content and face opportunity costs when they choose to view one item over another
 - Items placed at bottom of news feed by algorithm lead to few impressions
 - Platforms curate and prioritize content, and therefore produce the stream of content that its users see
- Governments will tend to treat platforms as producers when self-regulation insufficiently overlaps with government interests
 - Permitting platforms to self-regulate may lead to greater speech suppression (which may be welfare-enhancing)
 - If platforms go too far, governments may legislate to protect speech (see *Packingham v. North Carolina*, 137 S. Ct. 1730 (2017))

Conclusion

- Fake messaging, and driving up the costs of fact-searching, cannot be characterized as a negative externality generated by content producers so long as political outcomes are zero-sum
- In polarized settings, content production is Pareto-efficient
 - Special case: non-partisan content producers who simply seek to inflame discourse
 - Narrow band for regulation

Conclusion

- Regulation is welfare-enhancing when it strengthens broadly shared institutions
- Most clearly seen in enforcement of constitutionally settled law
- Regulation of platforms, as producers of user impressions of illegal content, can be welfare-enhancing
- Government action is related to the degree of overlap between platform and government interests