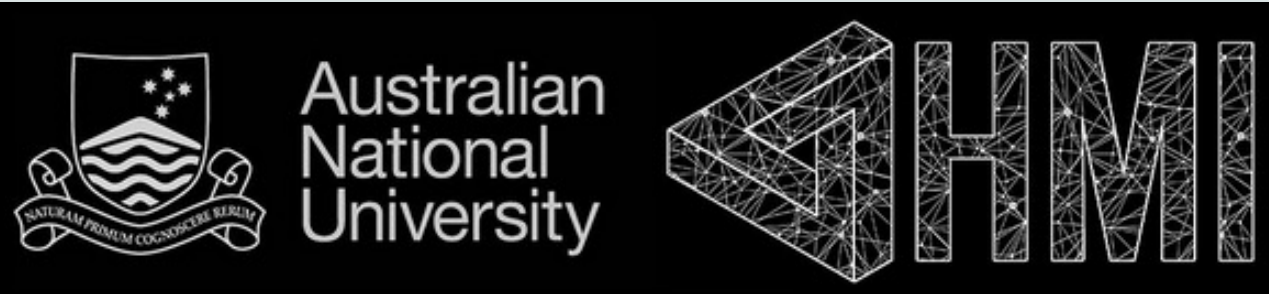# Speech Acts on Social Media:
Algorithms, Amplifiers, and Affordances

please note: this talk will contain some discussions of ethnic and gender-based violence

Australian National University

4HMI

Michael Randall Barnes

ANU Phil. Dept. Seminar Series – 9 Nov 2023
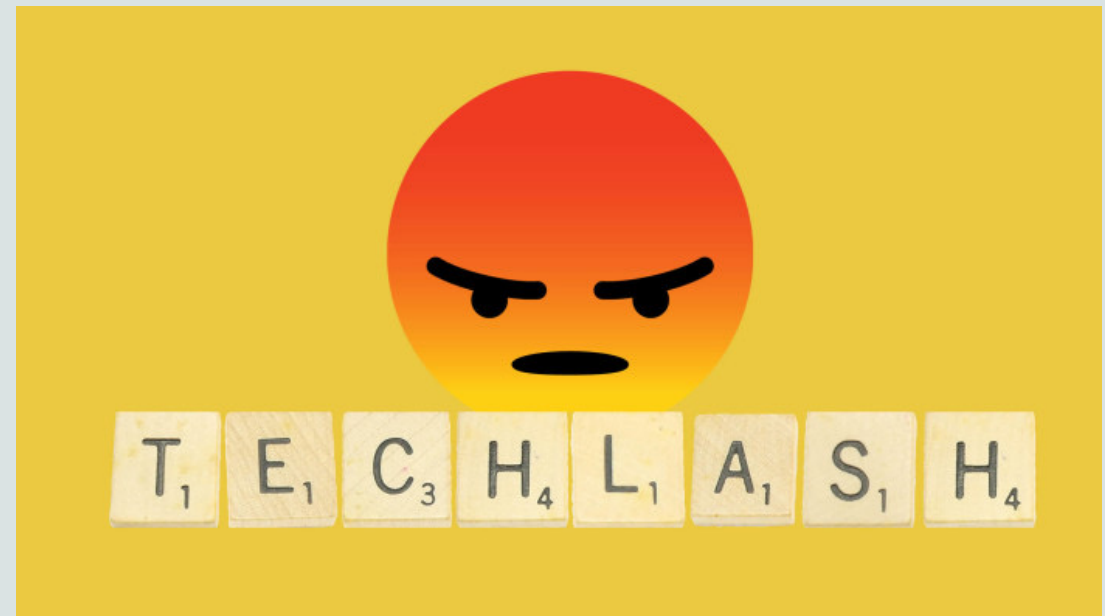
slides available at michaelrandallbarnes.com/talks

What's Going On When We Post On Social Media Platforms?

And Who Bears Responsibility When Things Go Wrong?

Platforms Bear Responsibility

Platforms Bear Responsibility

Seth Lazar: platforms exercise 'intermediary power' over their users, and this power requires justification (or elimination).

Jeff Howard: social media platforms have a duty to engage in content moderation based on "natural rescue duties to defend those wronged by such speech; duties to avoid complicity with users' wrongful speech; and duties to refrain from rendering otherwise innocuous content harmful through amplification.'

Platforms Bear Responsibility

<u>Jeff Howard</u>: 'My claim is that when a platform amplifies wrongful speech, increasing its visibility, <u>it thereby makes a greater causal contribution to the speaker's wrongdoing</u>—making his principal wrongdoing worse than it would otherwise be. Like the gun vendor who sells the terrorist a larger weapon, enabling him to kill more people, <u>platform amplification enables wrongful speakers to commit a greater wrong</u>.'

Platforms Bear Responsibility

My Aim: Clarify how platforms shape users' speech, and how and when platforms perform speech acts themselves. Use speech act theory (SAT) to illuminate the contribution that platform companies make to our communicative acts, by examining three (related) aspects of online environments: algorithms, amplifications, and affordances.

Three Observations From SAT

1. Speech acts are acts that occur in particular **contexts**;

2. The **audience** of a speech act (as part of its context) partly determines illocutionary force;

3. The **uptake** an audience gives plays an important (and sometimes determinative) role in constituting a speech act.

In short, context, audience, and uptake are crucial determinants of what speech acts occur. Controlling these features can mean controlling illocutionary force.

for online speech, SAT can help show how:

As <u>algorithmic intermediaries</u> Social Media Platforms <u>control the context</u> of our discursive interactions and are therefore <u>constitutive intermediaries</u> of our online speech.

Through <u>amplification</u> – or rather, recommender systems – platforms <u>control the audience</u> of a given utterance, inserting it into contexts of their choosing, making them <u>co-speakers</u> of a sort.

Through various <u>affordances</u>, platforms <u>make 2nd-personal calls to users</u>, that <u>shape user actions (uptake)</u> that then shapes our speech acts

[And the force of those calls can be illuminated by examining their pragmatic structure.]
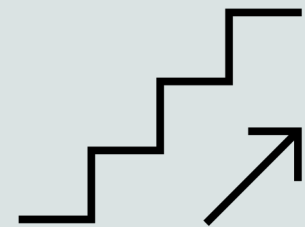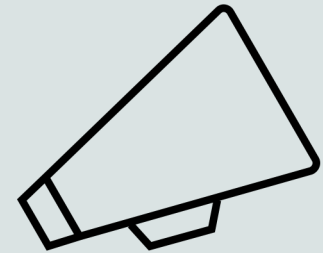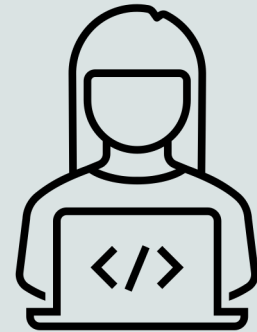
A note: I adopt a very liberal interpretation of what can count as a 'communicative acts' / 'speech acts'

"For a thing to be speech, its purpose must be to communicate something, and it must be presented by a speaker to an audience. … Speech must have a speaker and an audience, and a structure rich enough that it can be part of a communicative system"

> (Kukla).

A "communicative act [is] any act whose function is to convey information"

> (Tanessi)

"Speech acts are at least partly defined by their characteristic aims: an assertion is an act whose characteristic aim is to inform someone, a command is an act whose characteristic aim is to direct someone's actions, and so on"

> (Michaelson, Pepp, Sterken).
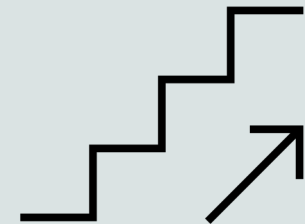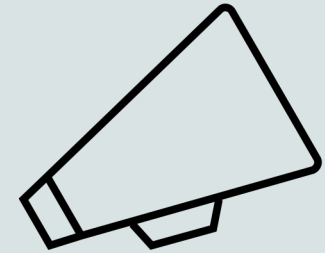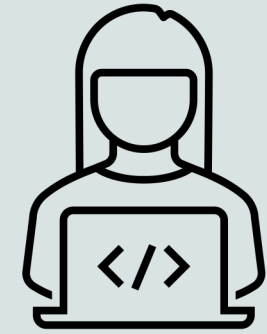
The Plan

Introduction -   Why Social Media?

Why Speech Act Theory?

Three Features of our Online Environments

1.   Algorithms

2.   Amplifications

3.   Affordances

Wrap Things Up

Let's take a step back in time
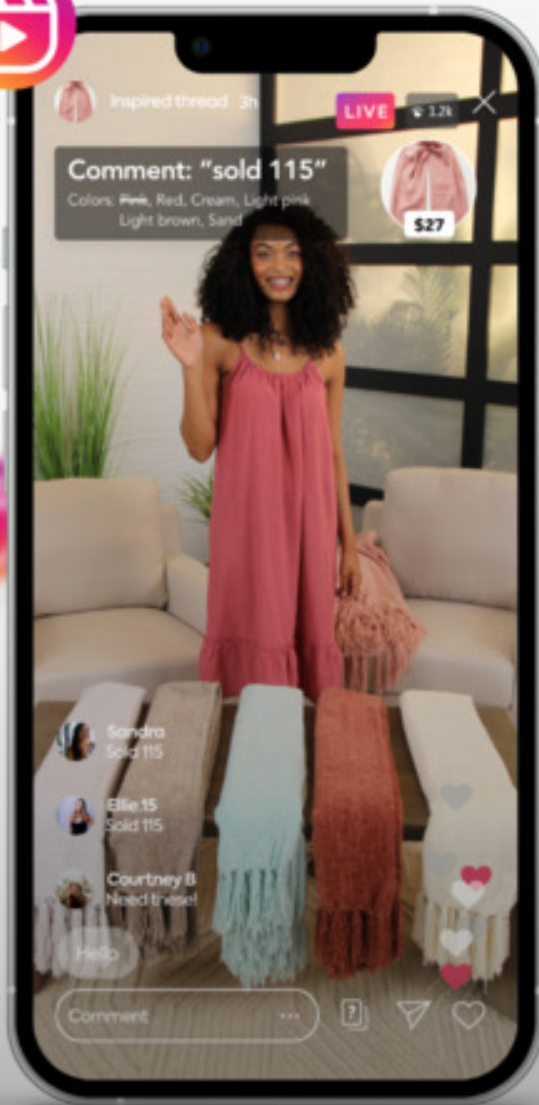
Now: Social Media just is Media

Forbes

Facebook Removes Record Number Of Hate Speech Posts [Infographic]

Niall McCarthy Contributor ⓘ

Business

Data journalist covering technological, societal and media topics

On Tuesday, Facebook released its biannual Community Standards Enforcement Report which provided the latest metrics on the number of controversial posts removed from the platform. The company took action against more than 2 billion pieces of content violating its community standards between January and March 2020 and an upsurge in content promoting hate and violence was particularly noteworthy.

Speech is Action, and through speech we structure the social world in concrete ways. That, is, through speech, we do more than transfer information. We *request*, *command*, *insult*, *invite*, *warn*, *inquire*, *propose*, etc. In doing so, we make concrete changes to the social landscape.

Speech performs these actions—these normative social transformations of obligations, permissions, etc.—only when performed in the right context, following the right conventions, and when the speaker has the right entitlements and/or authority.

Speech Act Theory

J.L Austin

The Locutionary Act

- The making of a meaningful utterance.

  The act of "saying something".

The Illocutionary Act

- An act of doing something with words (like promising or betting).

  The act performed "in speaking".

The Perlocutionary Act

- An act brought about by doing something with words (like making your partner happy or upsetting your parents).

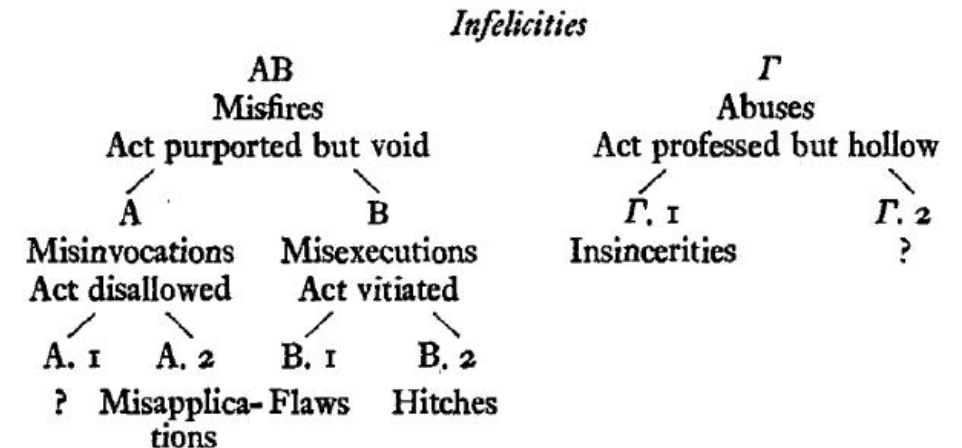 The act effected "by speaking".

Speech Act Theory

J.L Austin

Categories of Felicity Condition

(A. 1) There must exist an accepted conventional procedure having a certain conventional effect, that procedure to include the uttering of certain words by certain persons in certain circumstances, and further,

(A. 2) the particular persons and circumstances in a given case must be appropriate for the invocation of the particular procedure invoked.

(B. 1) The procedure must be executed by all participants both correctly and

(B. 2) completely.

(Γ. 1) Where, as often, the procedure is designed for use by persons having certain thoughts or feelings, or for the inauguration of certain consequential conduct on the part of any participant, then a person participating in and so invoking the procedure must in fact have those thoughts or feelings, and the participants must intend so to conduct themselves,[1] and further

(Γ. 2) must actually so conduct themselves subsequently.

Kinds of Infelicity

Infelicities

```
                    AB                                  Γ
                  Misfires                            Abuses
           Act purported but void            Act professed but hollow
            /              \                   /               \
           A                B                Γ.1               Γ.2
      Misinvocations    Misexecutions      Insincerities         ?
      Act disallowed     Act vitiated
        /      \          /       \
      A.1      A.2       B.1       B.2
       ?   Misapplica-  Flaws    Hitches
             tions
```

- Austin is a **conventionalist**: what matters for the performance of a speech act is that the speaker acts according to publicly defined conventions. The speaker's mental states are of secondary concern.

- Like all conventions, felicity conditions do not have perfectly sharp boundaries of application.

They shade into one another.

(Daniel W. Harris)

Mackinnon: "words that set conditions" for other speech act's success.

Hornsby and Langton: "some kinds of speech can set the conditions for other kinds of speech: they make some speech acts possible for some, and impossible for others"

Three Observations From SAT

1. Illocutionary acts are acts that occur in particular **contexts**:
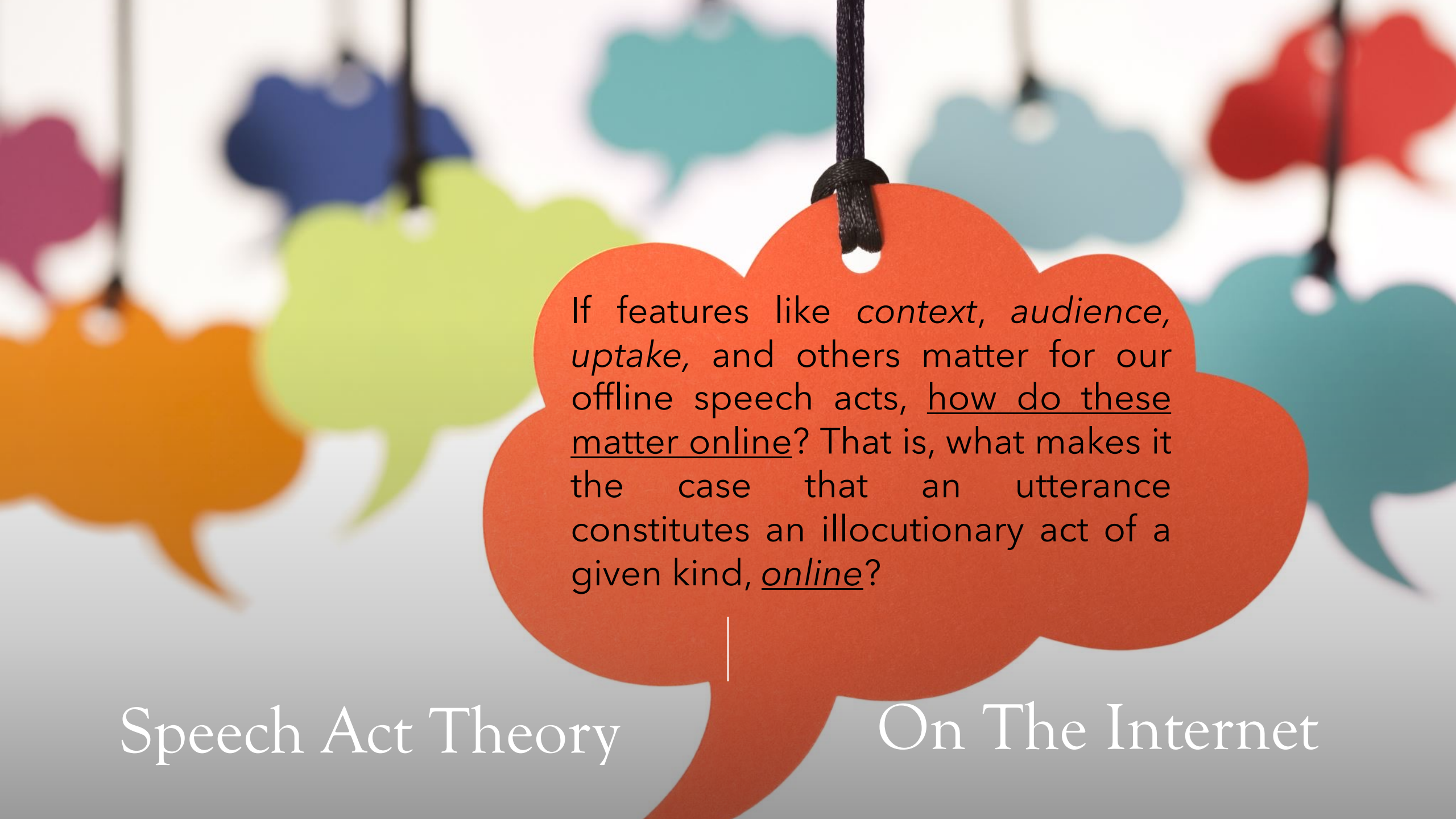
   Illocutionary acts are uses; in different contexts the same locution may be put to different uses.

2. The **audience** of a speech act (as part of its context) partly determines illocutionary force:

   An utterance among equals can be different from the same utterance occurring in a hierarchy.

3. The **uptake** an audience gives plays an important (and sometimes determinative) role in constituting a speech act:

   Ex: refusals, jokes, bets, questions, etc.

If features like *context*, *audience*, *uptake*, and others matter for our offline speech acts, <u>how do these matter online</u>? That is, what makes it the case that an utterance constitutes an illocutionary act of a given kind, <u>*online*</u>?

Speech Act Theory

On The Internet

Part 1

Algorithms

Algorithms

- Unlike offline, in real life (IRL) speech, Online Speech is only made possible because of the existence of (algorithmic) intermediaries.

- These intermediaries have an impact on how we act.

Algorithms

- Unlike offline, in real life (IRL) speech, Online Speech is only made possible because of the existence of (algorithmic) intermediaries.

- These intermediaries have an impact on how we act.

Tarleton Gillespie, *Custodians of the Internet*:

_____

"platforms don't just mediate public discourse, <u>they constitute it.</u>" They "don't make the content; but they do <u>make important choices about it</u>. While the early platforms merely made user contributions available and searchable, increasingly they <u>determine what users can distribute and to whom, how they will connect users and broker their interactions, and what they will refuse</u>.'
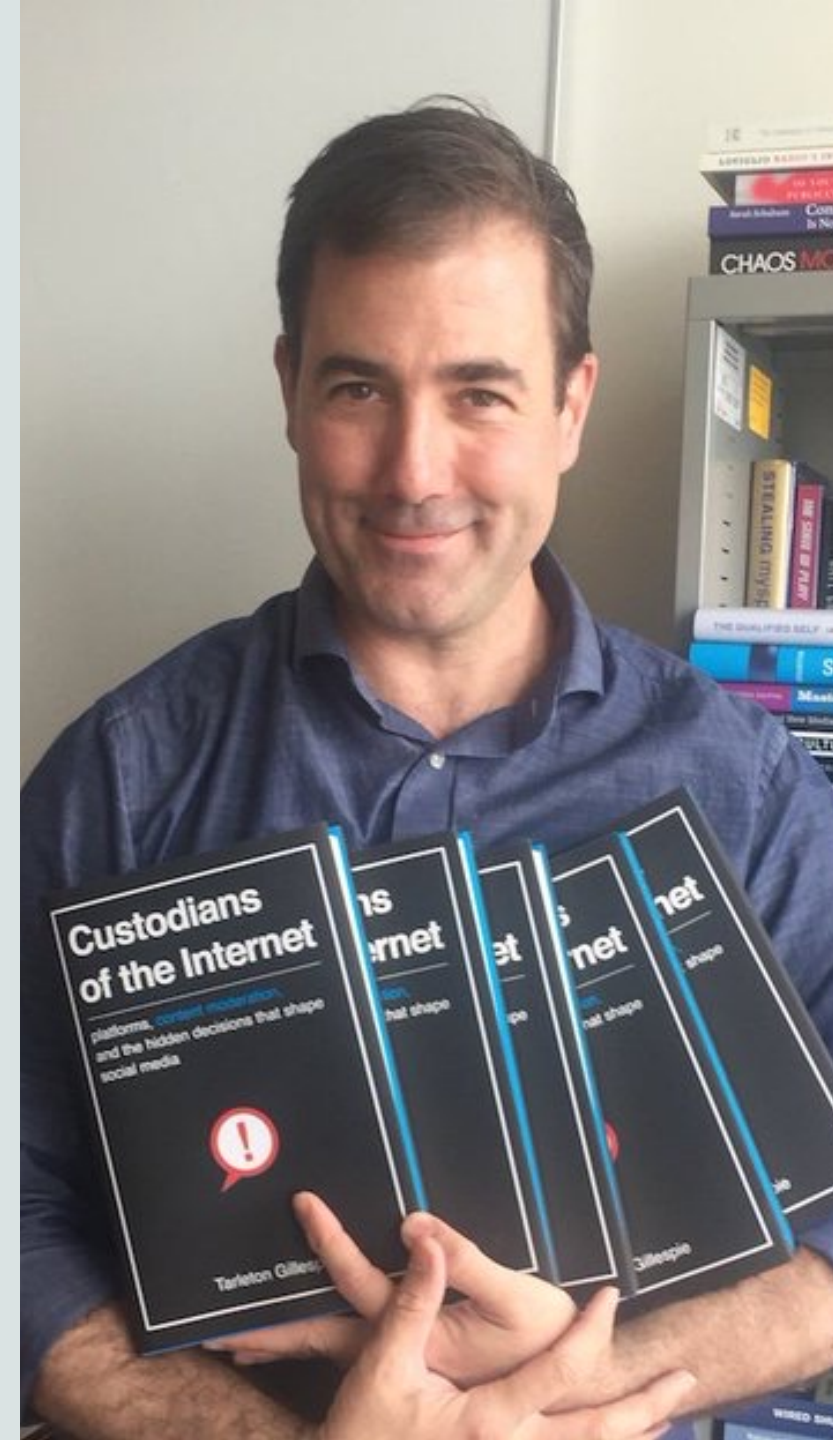
Tarleton Gillespie, *Custodians of the Internet*:

———

"the moment that social media platforms introduced profiles, the moment they added comment threads, the moment they added ways to tag or sort or search or categorize what users posted, the moment they indicated what was trending or popular or featured—the moment they did anything other than list users' contributions in reverse chronological order—they moved from delivering content for the person posting it to constituting it for the person accessing it."
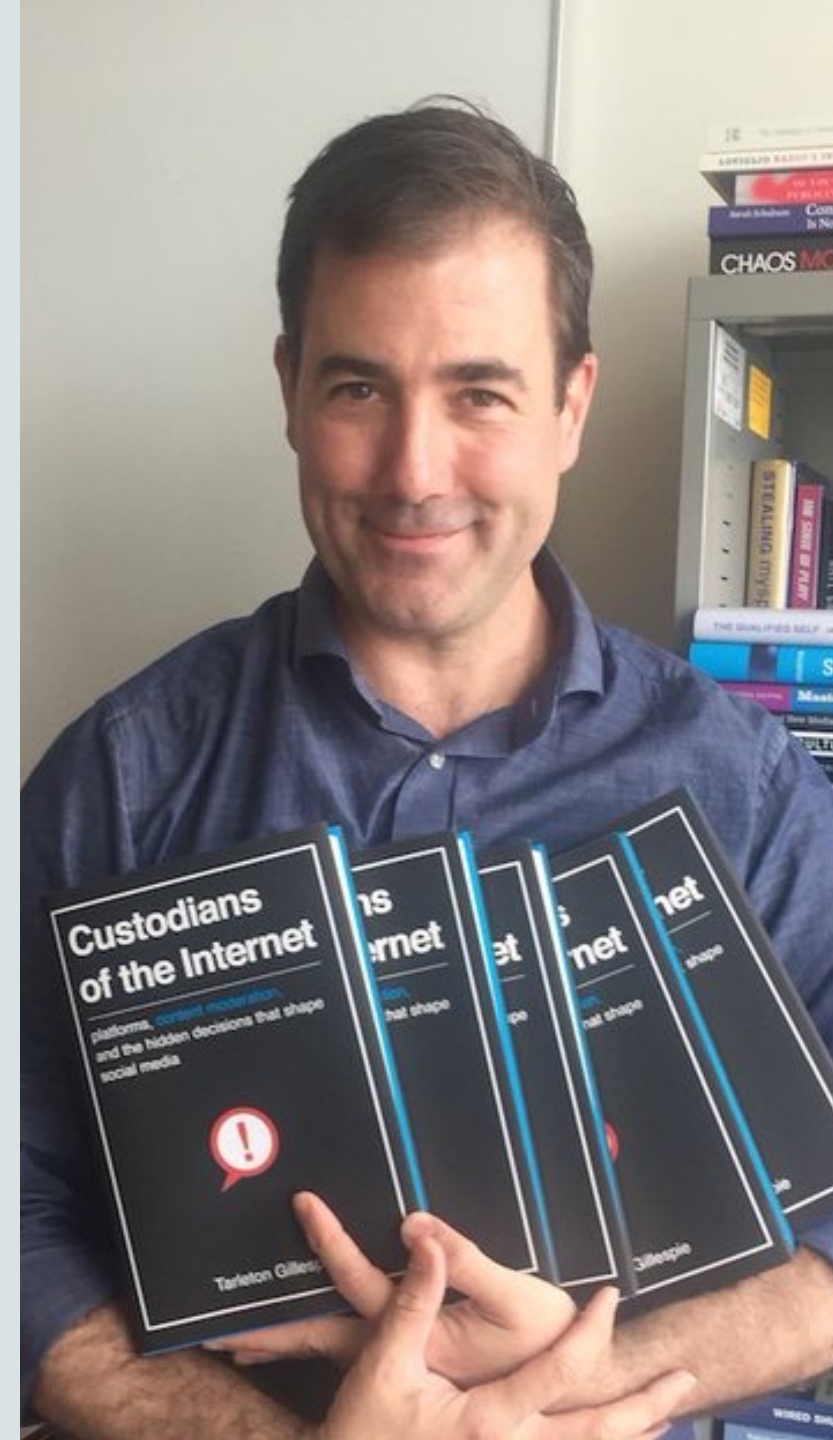
"context is not just the backdrop against which a person speaks; rather, the context and the subject mutually determine each other ongoingly. Beliefs, desires, and intentions are seen not as arising out of and attaching to an authentic, monolithic self, but rather as forces that are in play in the situation.

- **Mary Louise Pratt, "Ideology and Speech-Act Theory"**

Online platforms are therefore constitutive intermediaries

Part 2

Amplifications

"When we speak online—when we share a thought, write an essay, post a photo or video—who will hear us? The answer is determined in large part by algorithms."
  - Arvind Narayanan (2023)

Amplifications

"The concept of internet amplification may inevitably be fuzzy at the edges. Almost any act that spreads or draws attention to particular information could be characterized as amplification." - Daphne Keller

Amplifications

Table 1: Major social media algorithms.

Content processing	Content propagation
Face recognition	Search
Image filters	Recommendation (feeds)
Annotation (e.g., image tagging)	Ad delivery and targeting
Audio transcription	Content moderation
Language translation	Friend recommendation
Augmented & virtual reality	Notification
...	Trending
	...

(Narayanan 2023)

(Algorithmic) Amplification

Retweets (shares)
vs.
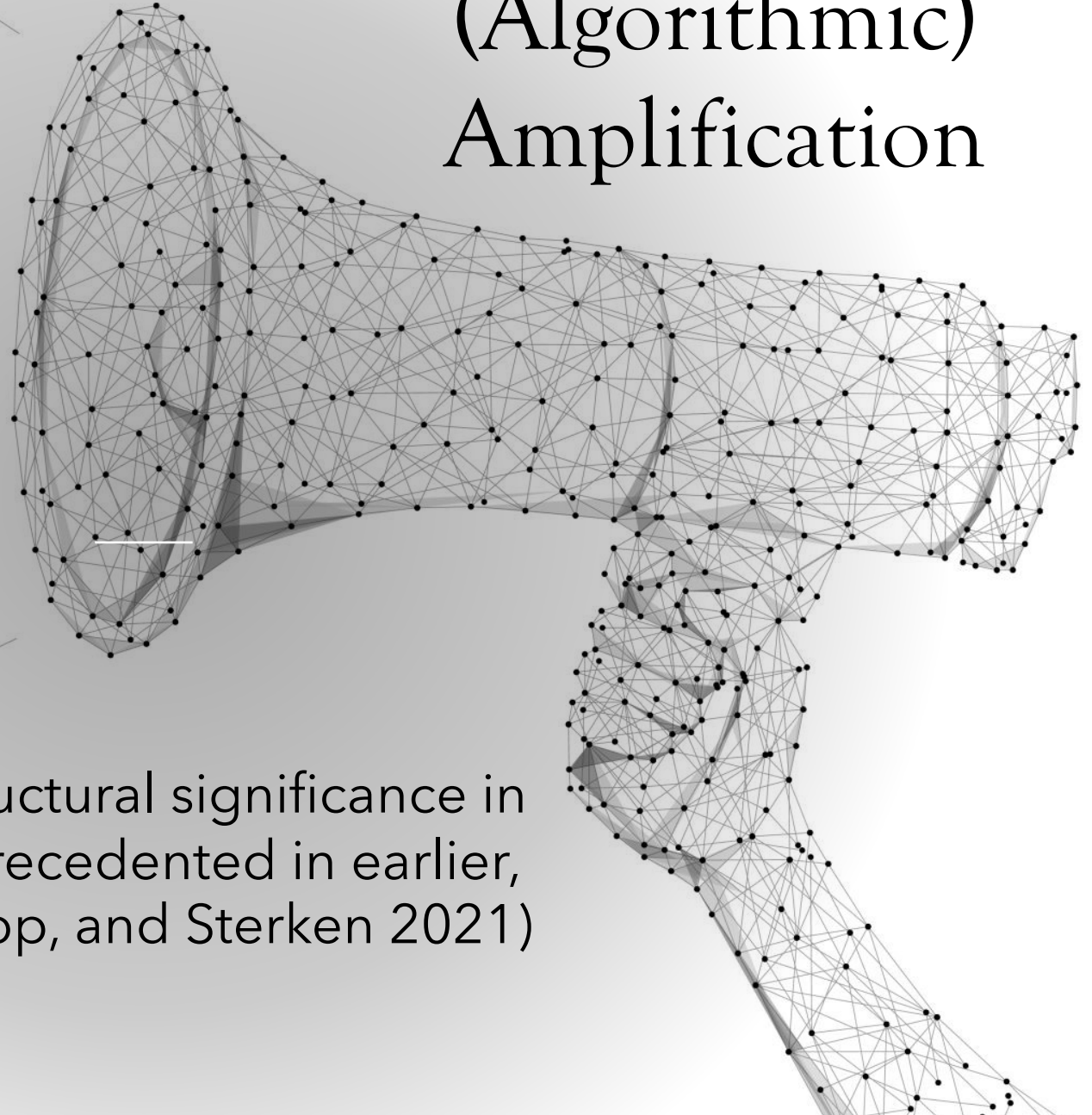QuoteTweets (shares with commentary)
vs.
Recommendation Algorithm(s) generated amplification

All enable different sorts of 'amplification'

"amplification has taken on a structural significance in online speech that is totally unprecedented in earlier, offline speech." (Michaelson, Pepp, and Sterken 2021)

(Algorithmic) Amplification

Algorithmic exposure: "the ability of algorithmic systems to expose users to overtly harmful content, such as extremist or radicalizing content and misinformation"

Algorithmic inequality: "the concern that social media platforms unfairly allocate more influence to some types of people than others"
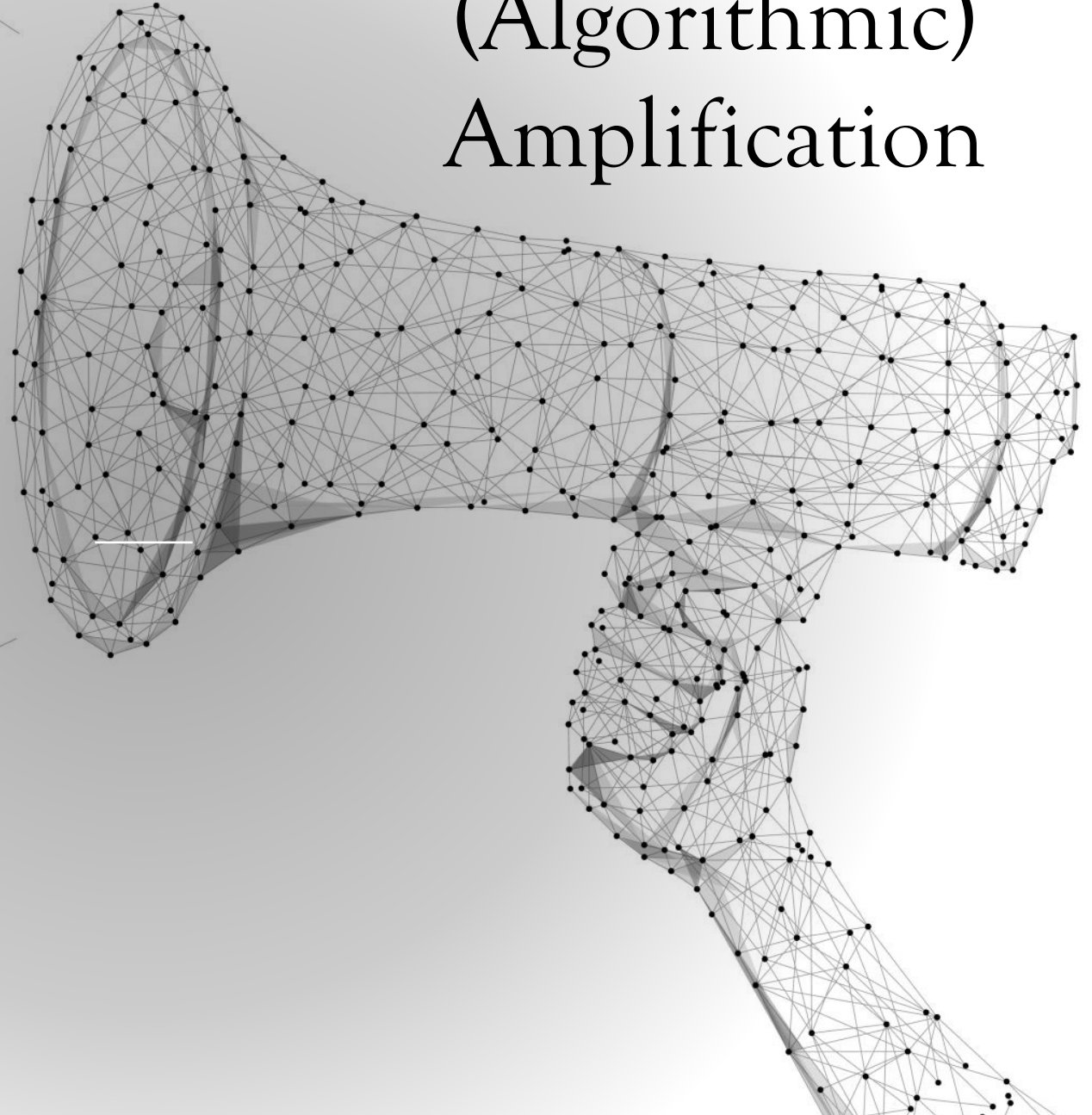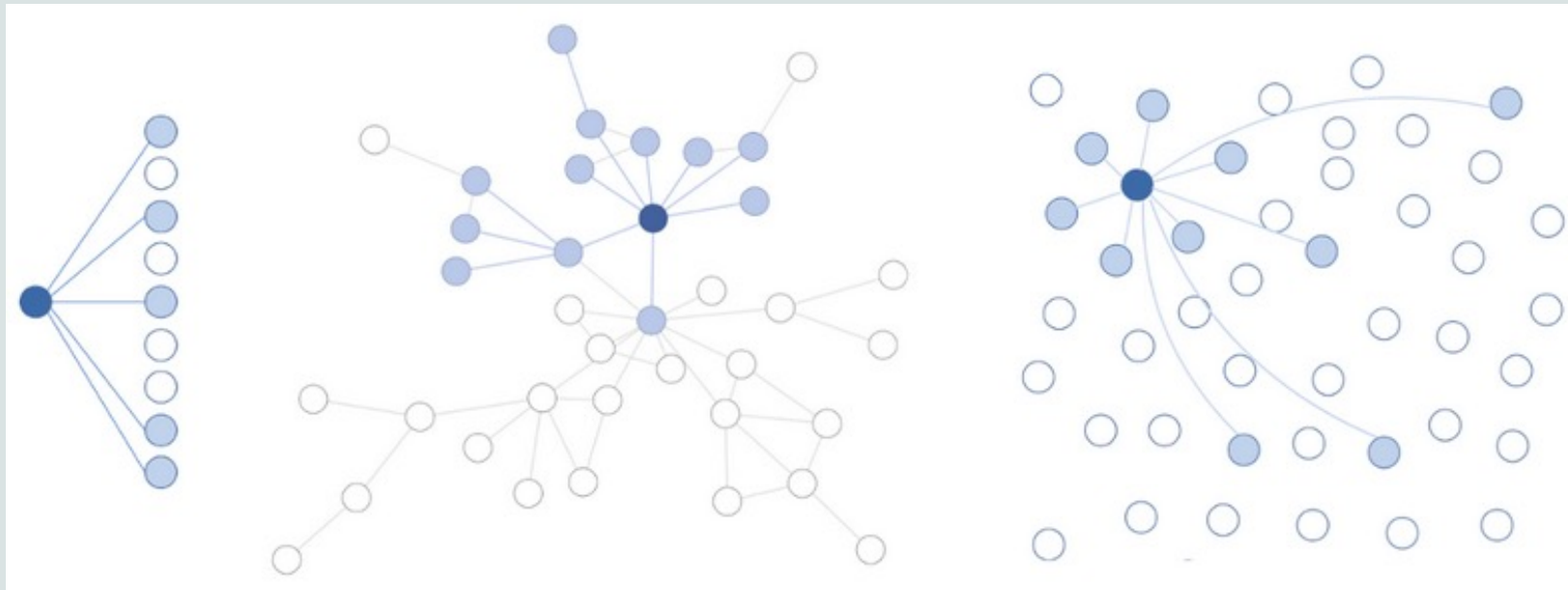
(Lum and Lazovich, 2023)

Table 2: Three stylized models of information propagation.

	Subscription	Network	Algorithm
What a user sees	Posts by those they've subscribed to	Posts by (or shared by) those they've subscribed to	Posts the algorithm predicts the user will like best
Examples	Newspapers, Substack, FB pre-2009, IG pre-2022	Word of mouth, the web, Twitter pre-2016, Mastodon	TikTok, Google Discover, YouTube
What impacts a post's reach	Poster's subscriber count	Both subscriber count and content	The content of the post

(Narayanan 2023)
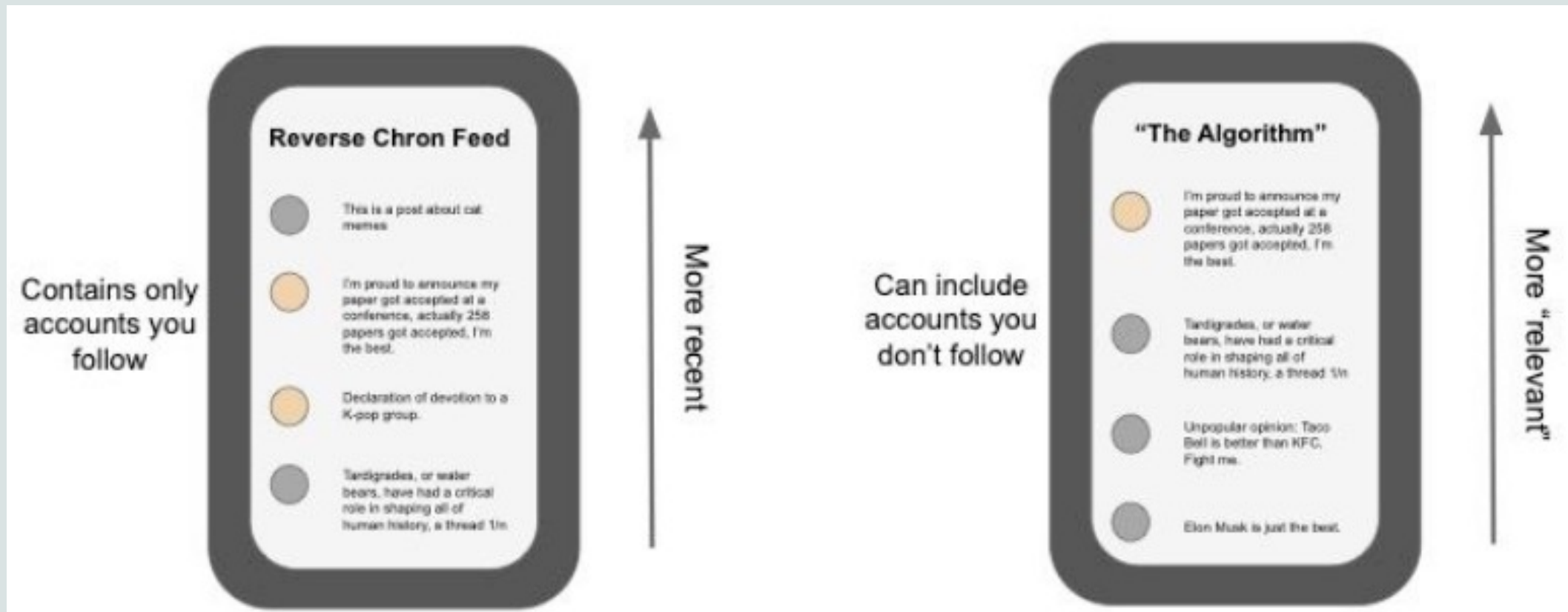
Figure 2: Example of reverse chronological feed (left) vs. ranked feed (right)

(Lum and Lazovich 2023)

A typical recommender pipeline, along with the approximate number of items retained at each stage for a large platform.
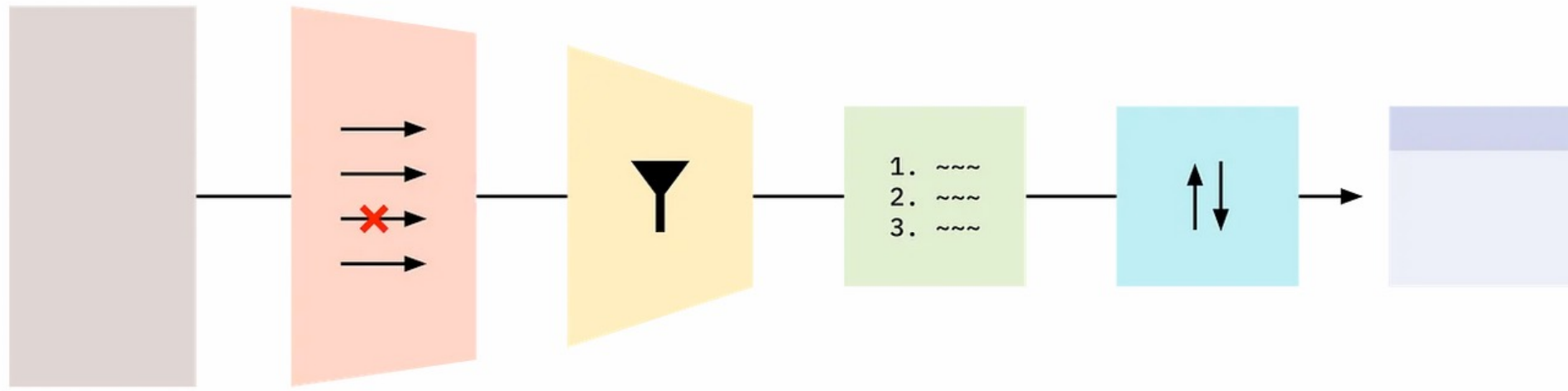
Moderation — Candidate Generation — Ranking — Re-ranking

All $> 10^8$ items $> 10^8$ items $10^8 \rightarrow 10^2$ items   Same 10^2 items   Same 10^2 items   Top 10^1 items shown to user

Thorburn, Benjani, and Stray, 2022
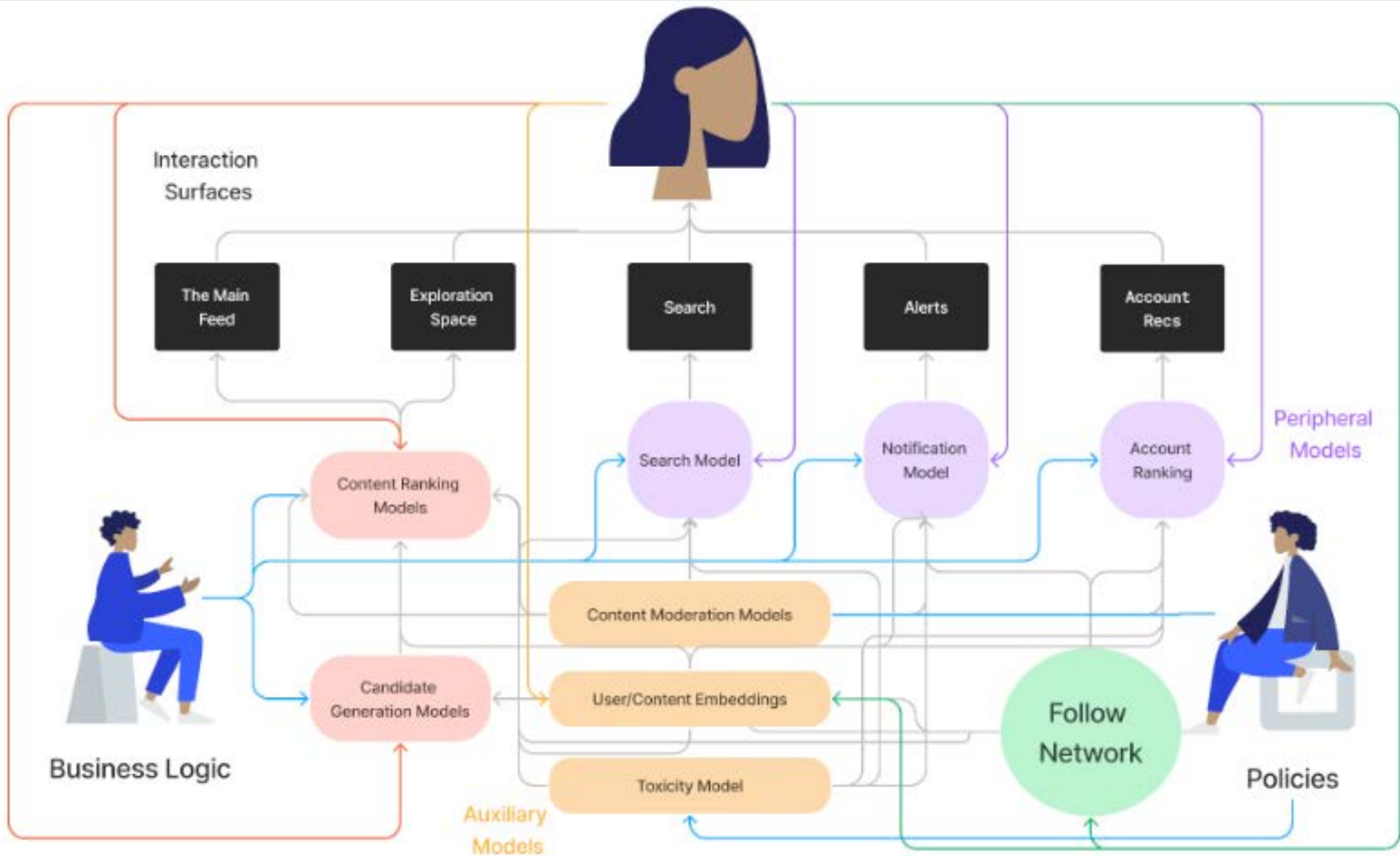
A schematic diagram of a typical social media platform (Lum and Lazovich 2023)

Thorburn, Benjani, and Stray, 2023
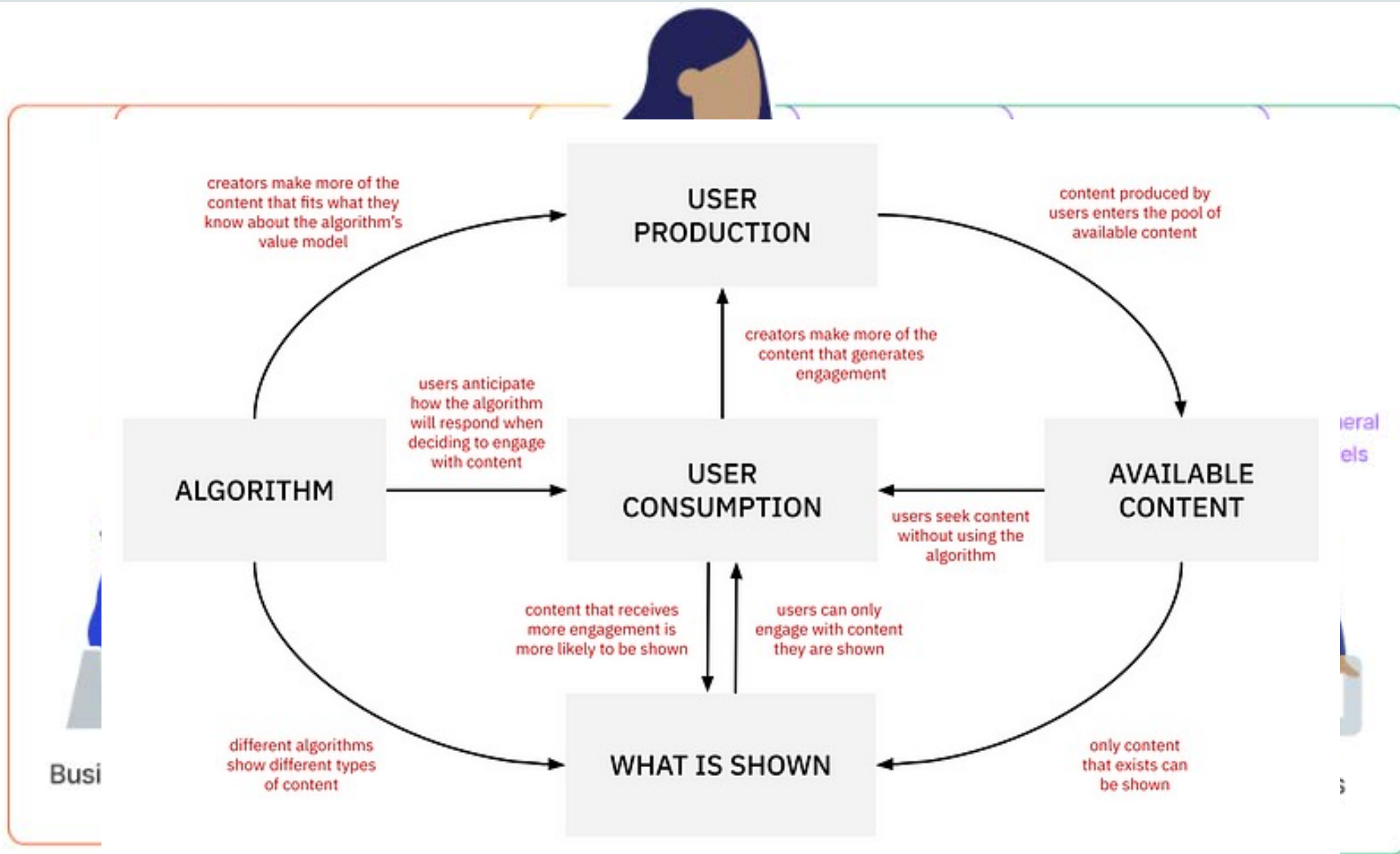
The Same Idea, But Simpler

Platform design
- Algorithms
- Policies
- UX

Principles of information propagation

Emergent effects

Human behavior
- Consumers
- Creators
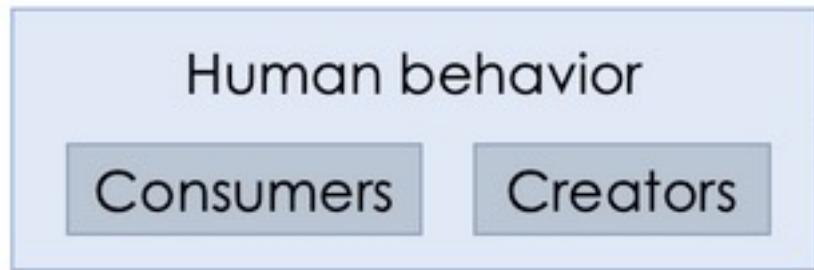
(Narayanan 2023)

U.N. investigators cite Facebook role in Myanmar crisis

By Tom Miles

BBC NEWS

Facebook admits it was used to 'incite offline violence' in Myanmar

6 November 2018

AMNESTY INTERNATIONAL

MYANMAR: FACEBOOK'S SYSTEMS PROMOTED VIOLENCE AGAINST ROHINGYA; META OWES REPARATIONS

"In 2017, the Rohingya were killed, tortured, raped, and displaced in the thousands as part of the Myanmar security forces' campaign of ethnic cleansing. In the months and years leading up to the atrocities, Facebook's algorithms were intensifying a storm of hatred against the Rohingya which contributed to real-world violence."

Agnès Callamard, *Amnesty International*'s Secretary General

Consider the 'corn-dealers' from John Stuart Mill's *On Liberty*

"even opinions lose their immunity, when the circumstances in which they are expressed are such as to constitute their expression a positive instigation to some mischievous act. An opinion that corn-dealers are starvers of the poor, or that private property is robbery, ought to be unmolested when simply circulated through the press, but may justly incur punishment when delivered orally to an excited mob assembled before the house of a corn-dealer, or when handed about among the same mob in the form of a placard."
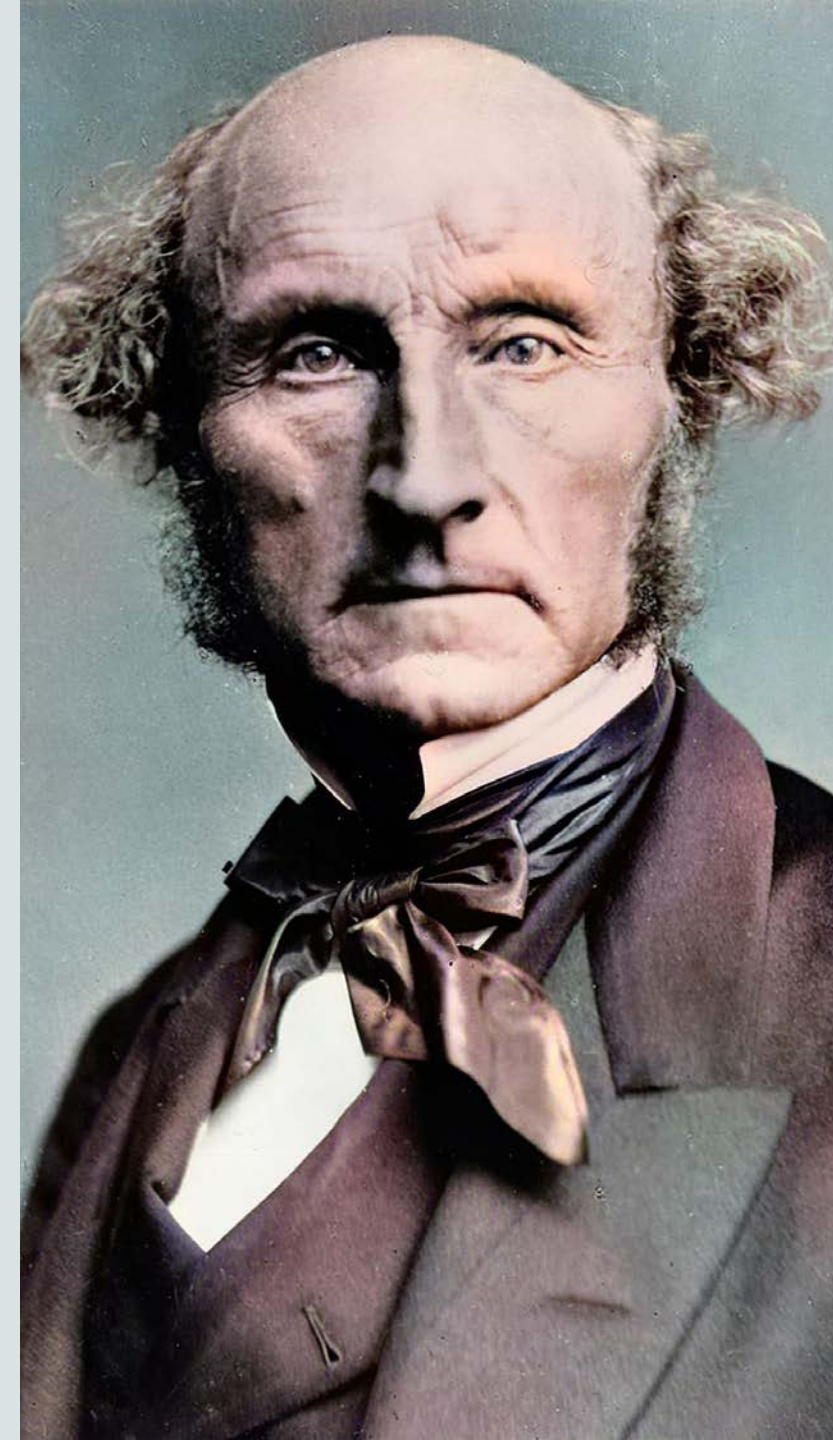
Consider the 'corn-dealers' from John Stuart Mill's *On Liberty*

——

The opinion that "corn-dealers are starvers of the poor"

    (a) circulated through the press,

    (b) delivered orally to an excited mob assembled

        before the house of a corn-dealer,

    (c) handed about among the same mob in the form
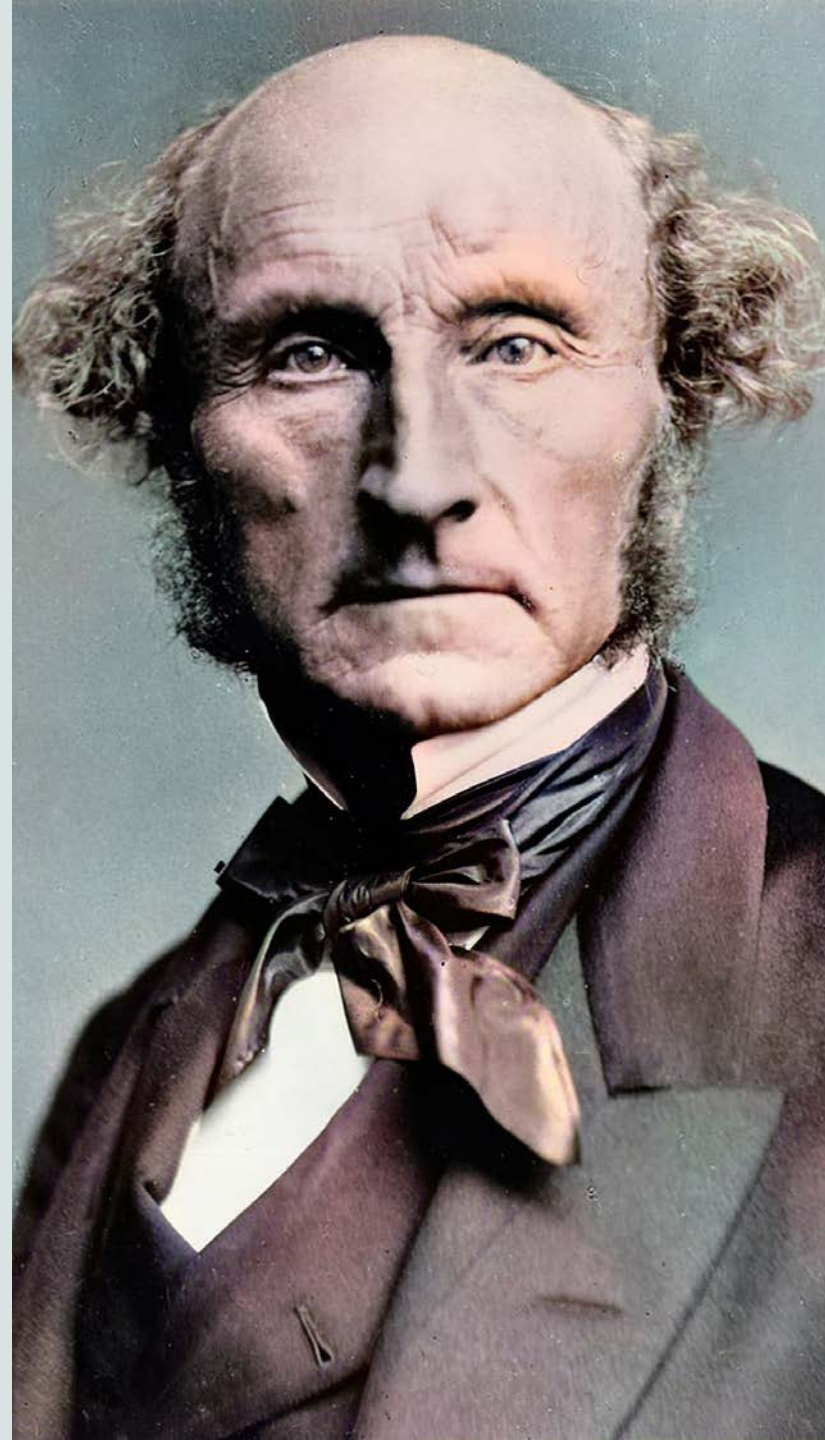
      of a placard.

Incitement (Online)

(c) handed about among the same mob in the form

of a placard.

- Time of production differs from time of use.

In cases of **delayed communication,** the illocutionary force of written text or a recorded utterance isn't determined by the context of production or creation of the utterance, but something else.

- *Encoded Context vs. Intended Context vs. Decoded context*

Facebook admits it was used to 'incite offline violence' in Myanmar

6 November 2018

MYANMAR: FACEBOOK'S SYSTEMS PROMOTED VIOLENCE AGAINST ROHINGYA; META OWES REPARATIONS

"Meta's algorithms proactively amplified and promoted content which incited violence, hatred, and discrimination against the Rohingya – pouring fuel on the fire of long-standing discrimination and substantially increasing the risk of an outbreak of mass violence. The report concludes that Meta substantially contributed to adverse human rights impacts suffered by the Rohingya and has a responsibility to provide survivors with an effective remedy."

- Amnesty International

"**Meta's algorithms** proactively **amplified** and **promoted** content which **incited violence, hatred, and discrimination** against the Rohingya – pouring fuel on the fire of long-standing discrimination and substantially increasing the risk of an outbreak of mass violence. The report concludes that **Meta substantially contributed** to adverse human rights impacts suffered by the Rohingya and **has a responsibility** to provide survivors with an effective remedy."

- Amnesty International

Amplification as Speech Act(s)

"Platforms that use algorithms to rank user content effectively set editorial policy and "speak" through ranking decisions. The message conveyed can be pretty boring: Platforms say things like "I predict that you'll like this" or "I think this is what you're looking for." That's enough that lower courts have recognized First Amendment protection for platforms' ranking choices." - Daphne Keller

Recommendations have verdictive and exercitive force (and value)

(Algorithmic)
Amplification

Joint Speech Acts?
Co-Speakers?
Collective Speech?
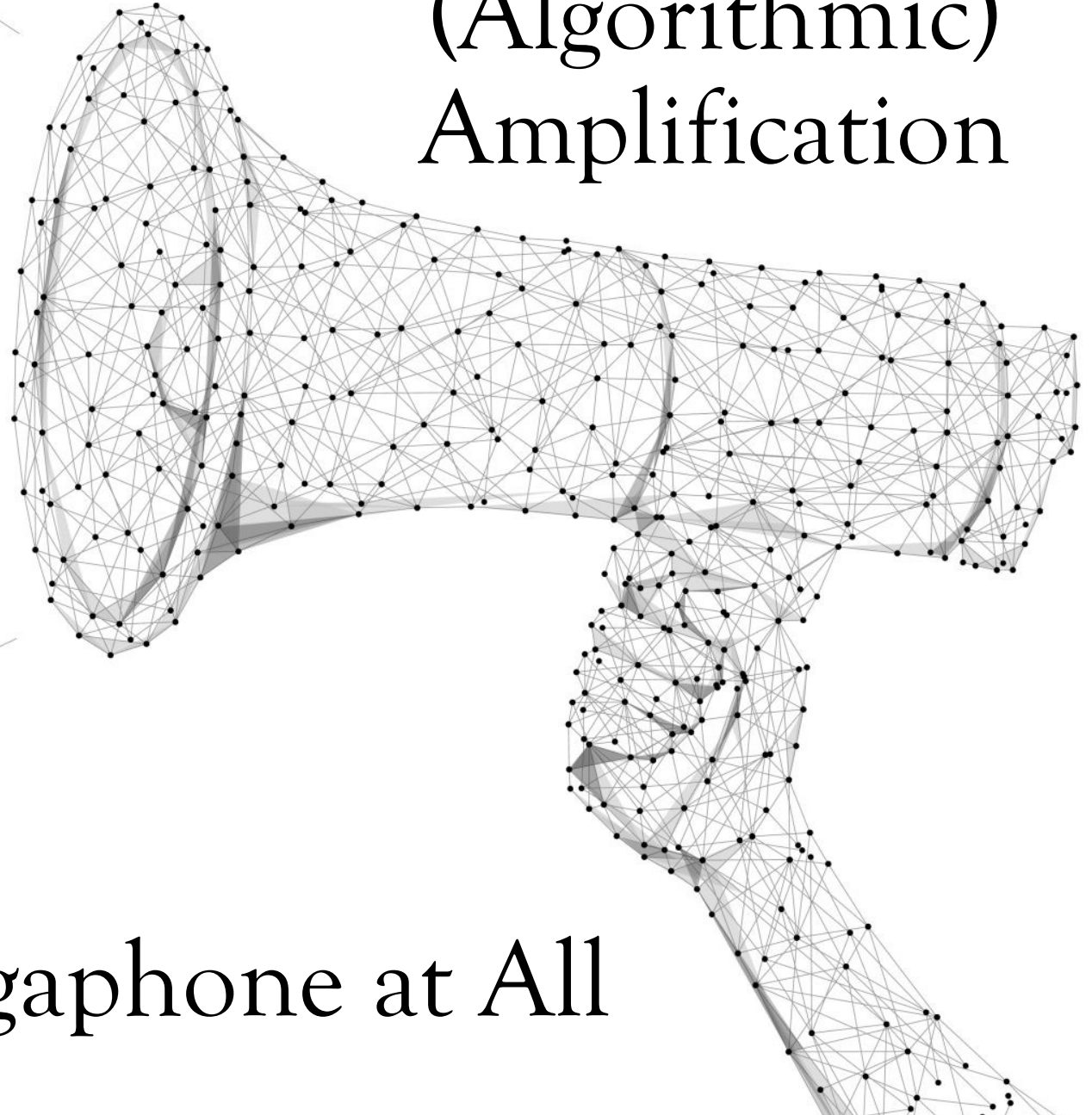
Really Not a Megaphone at All

Upshot:
Ditch amplification, think recommendation

- **Not (mere) conduits? Not really publishers? But a secret 3rd thing**

    "trusted interpersonal information conduits" vs. "media content producers"

- While Platforms aren't considered the publishers or speakers of user-generated content, thanks to CDA Section 230, the role of recommendation algorithms as platform speech should challenge this understanding.

- (note: there may be other reasons to maintain 3rd party immunity for platforms.)

Part 3
Affordances
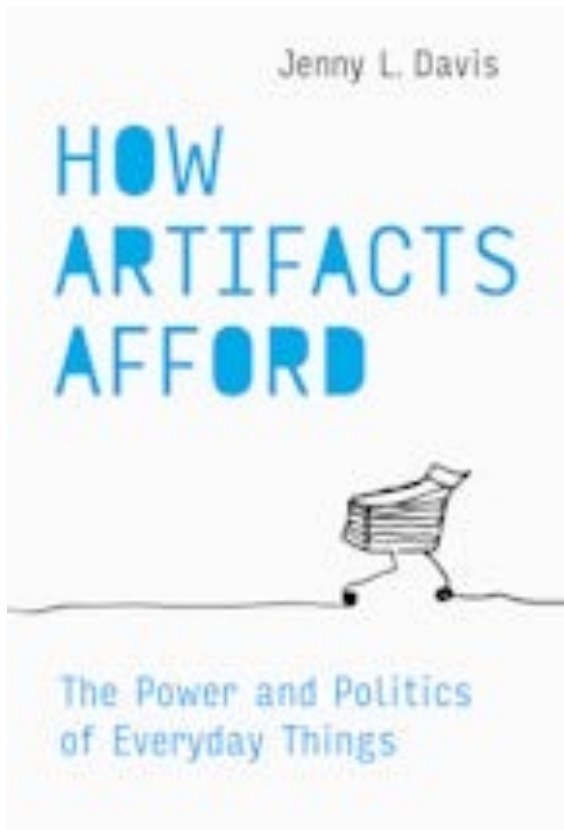
Affordances

"Affordances mediate between a technology's features and its outcomes. Technologies don't make people do things but instead, push, pull, enable, and constrain. Affordances are how objects shape action for socially situated subjects."

- Jenny Davis

> "The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. The verb to afford is found in the dictionary, but the noun affordance is not. I have made it up. I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment."

Gibson, James. J. (1979) The Ecological Approach to Visual Perception. (p. 127)
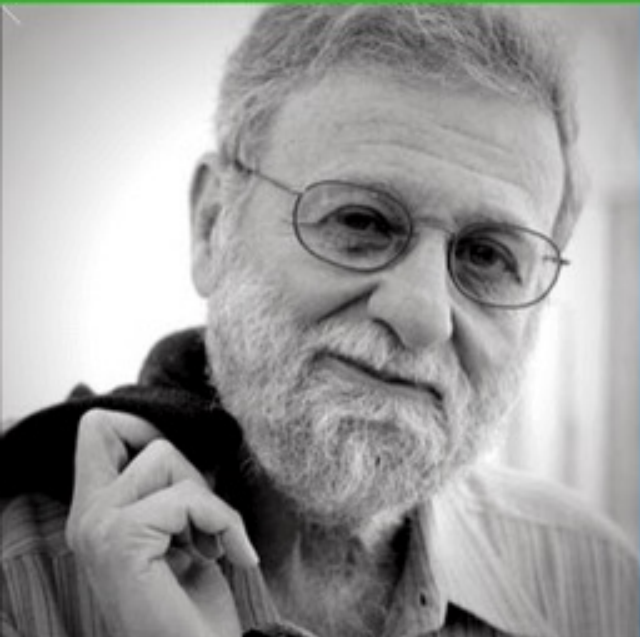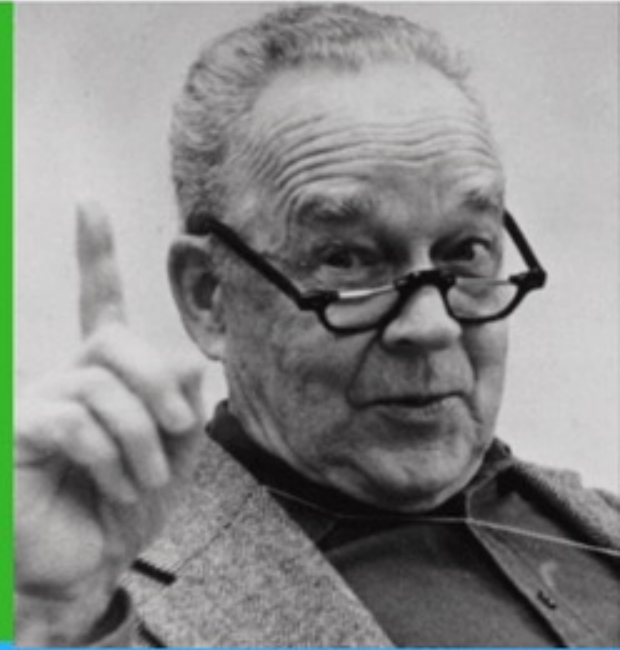
> "The term affordance refers to the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used. A chair affords ("is for") support, and, therefore, affords sitting."

Norman, Donald. (1988) The Design of Everyday Things (p. 9)

The affordances of the environment is the animal, what it provides or furnishes [ve]rb to afford is found in the dict[ionary] [but] not. I have made it up. I mea[n] [the] environment and the [complement]s. It implies the comple[mentarity of the animal and the] environment.

Gibson, [1977]

[perc]eived and actual [the]se fundamental [...]he thing could possibly be [sup]port, and, therefore, affords [...] sit[...]

[N]orman, Donald. (1988) The Design of Everyday Things (p. 9)

Three uses I want to get out of this concept

01
Affordances shape speech acts by <u>encouraging</u> some acts over others.

02
Affordances shape speech acts by <u>enabling uptake</u> that impacts the force.

03
Affordances shape speech acts by themselves <u>being 2nd Personal speech acts</u>.

Consider the @-ing function

"When someone is @-ed, their name shows up as clickable, and they typically receive a notification that someone has mentioned them. On the surface, what an @ does is allow the person to see that they have been addressed or mentioned. The @ has no semantic content of its own, nor does it act as a semantic operator on the name of the person tagged; its effect on the larger speech act in which it is embedded is purely pragmatic … The most interesting feature of @-ing, in my view, is that it calls to someone, but *in the public eye*. In effect, the @ serves as a technological means of pointing a speech act at someone, ensuring that the directed address is received, and ostending in a public way that this has all happened."

(Kukla forthcoming)

X stops showing headlines because Elon Musk thinks it will make posts look better

/ On iOS, when you try to post a link, you'll only see an image with the included attachment.

By Jay Peters, a news editor who writes about technology, video games, and virtual worlds. He's submitted several accepted emoji proposals to the Unicode Consortium.

Oct 5, 2023, 7:42 AM GMT+10 | 119 Comments / 119 New

X stops ~~showing headlines because Elon~~
Musk t~~hinks it looks~~ better

...~~t~~ry to post a ...~~an~~ image with ...~~comm~~ent.

...~~techn~~ology, video games, and ...~~more~~ proposals to the Unicode

~~✓~~ 119 New

pudding person @JUNlPER · 50m

NEW SCOOP: evidence showing elon musk is a pedophile mounting quickly

fortune.com

1. Affordances Shape Speech Acts (in a non-neutral way)

Seth Lazar: In Algorithmic Environments, "there is no 'natural' baseline to fall back on," and so "no neutral middle ground between prohibiting an option and endorsing [it]. For an algorithmic intermediary to permit an option X, it has to make it possible for users to X, and thereby becomes implicated in their X-ing."

2. Affordances shape speech acts by <u>enabling uptake</u> that impacts the force of an utterance
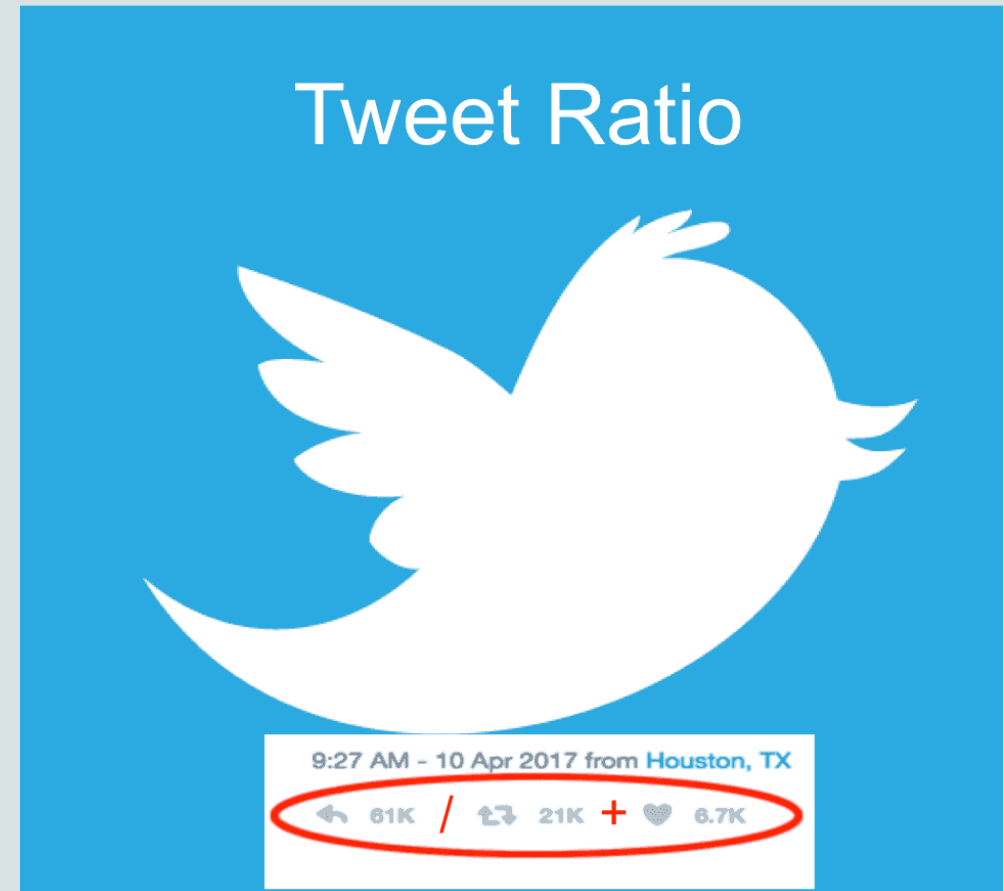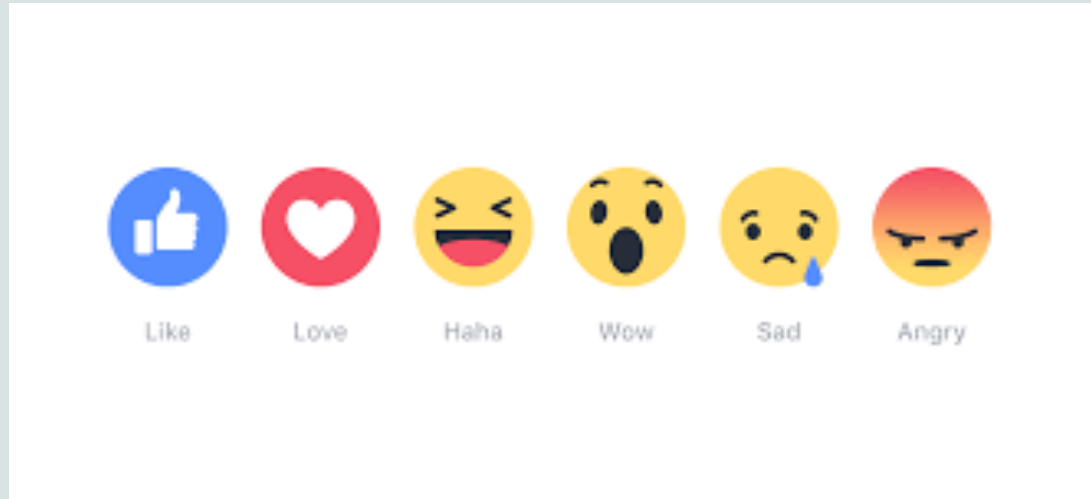
3. Platform Affordances are 2nd-Personal calls, Asking for Interaction (and data)

Lance and Kukla   Pragmatic Topography of Second-Person Calls   469

CALL →   Space of possible responses (SPR)

Space of appropriate uptake (SAU)

Responses satisfying constitutive goal

→ RESPONSE
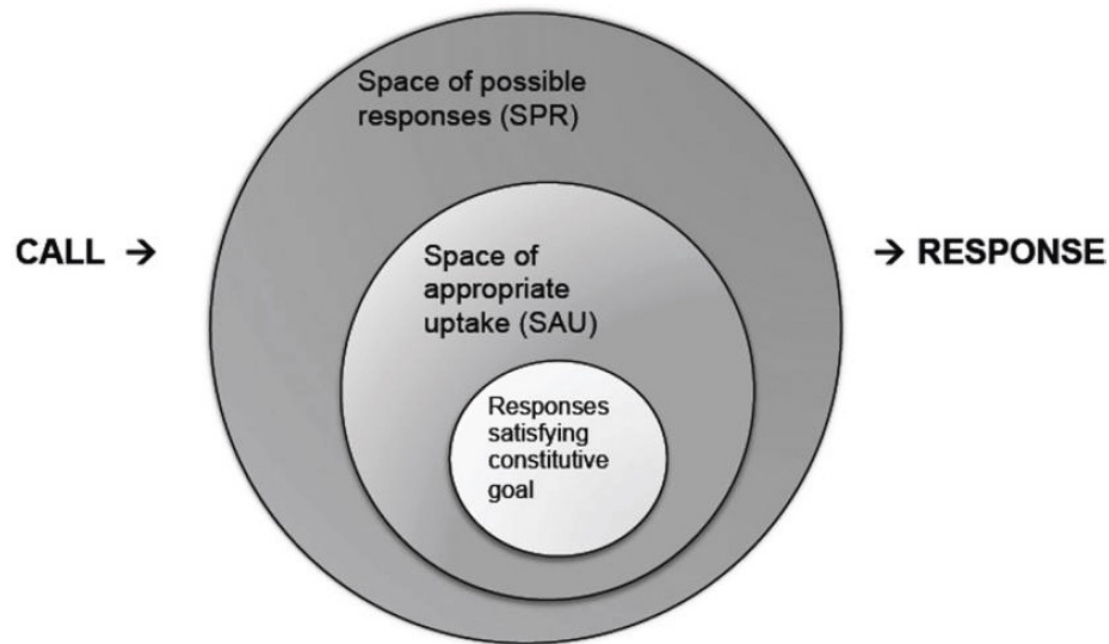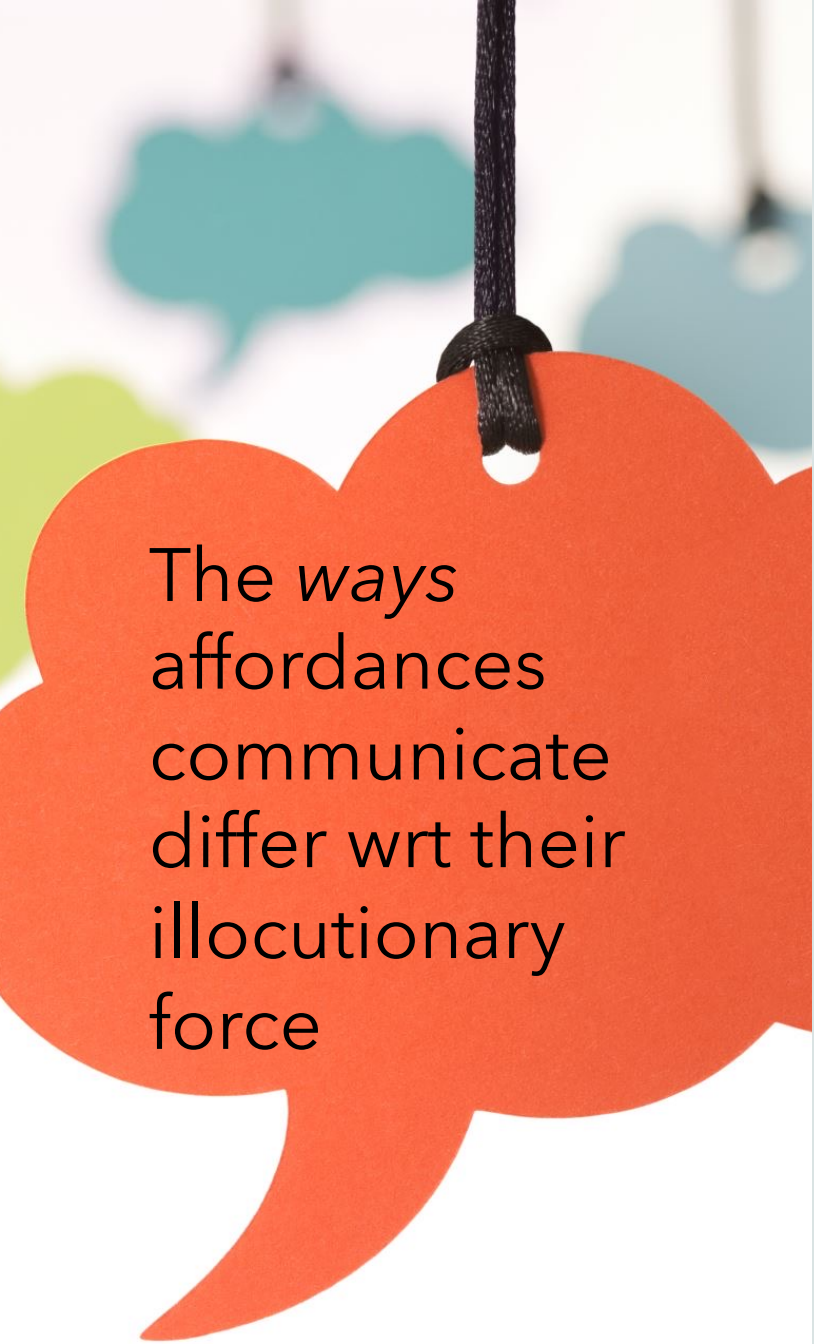
Fig. 1

Table 3: Interaction-type weights for the MSI formula in 2020.

Interaction type	weight
Like	1
Reaction	1.5
Reshare	1.5
Comment	15-20

(Narayanan 2023)

The *ways* affordances communicate differ wrt their illocutionary force

Davis: "technologies *request, demand, encourage, discourage, refuse,* and *allow* particular lines of action."

- (a) According to SAT, request and demand don't pick out the same thing with merely different levels of intensity.

- (b) But demands sometimes look like requests, and it is only when we know more about the circumstances that surround an act that we can come to know what act was performed.

Objection: Isn't this far too over-inclusive of what counts as a speech act?

The Aims and Purposes of Speech Act Theory:

Political not

Metaphysical

Wrapping Up

Three Features of our Online Environments - Revisited

1. *Algorithmic Intermediaries*

   In shaping the terms of interactions, including broad features of its context, platforms determine <u>how</u> we communicate online.

2. *~~Amplifications~~ Recommender Systems*

   In recommending content to users based on behavioural data and internal incentives, platforms decide <u>whom</u> we communicate with.

3. *Affordances*

   In designing an environment that enables and encourages various actions, platforms set the terms for <u>why</u> we act as we do.

🎁 Wrapping Up

Questions:

1. *Algorithmic Intermediaries*

    Given that users can push back against the top-down governance of algorithmic intermediaries, how should we understand the power dynamics at play?

2. ~~*Amplifications*~~ *Recommender Systems*

    Does the 'intended' or the 'decoding' context of SM utterances matter for illocutionary force? If it's the decoding context, how do we narrow that down given the sometimes-literal millions of options?

3. *Affordances*

    How do identify the right category of various design features that communicate like speech acts? Who is the 'speaker' of these affordances? And how do we go about analysing their force, given their ambiguity?

Thank You

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The limits of speech act theory: two examples

(E. 1)

Act (A)   or Locution

He said to me 'Shoot her!' meaning by 'shoot' shoot and referring by 'her' to *her*.

Act (B)   or Illocution

He urged (or advised, ordered, &c.) me to shoot her.

Act (C. *a*)   or Perlocution

He persuaded me to shoot her.

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Act (C. *b*)

He got me to (or made me, &c.) shoot her.

Donald J. Trump ✓
@realDonaldTrump

This Tweet violated the Twitter Rules about glorifying violence. However, Twitter has determined that it may be in the public's interest for the Tweet to remain accessible. Learn more

....These THUGS are dishonoring the memory of George Floyd, and I won't let that happen. Just spoke to Governor Tim Walz and told him that the Military is with him all the way. Any difficulty and we will assume control but, when the looting starts, the shooting starts. Thank you!

12:53 AM · May 29, 2020 · Twitter for iPhone

Tarleton Gillespie, *Custodians of the Internet*:

platforms are: online sites and services that

a) host, organize, and circulate users' shared content or social interactions for them,

b) without having produced or commissioned (the bulk of) that content,

c) built on an infrastructure, beneath that circulation of information, for processing data for customer service, advertising, and profit,

d) platforms do, and must, moderate the content and activity of users, using some logistics of detection, review, and enforcement.