



lessons on decentralized governance from online communities

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Community
Data Science
Collective

overview

- why look at online communities?
- rules and rule-making
- tools and technology
- ending notes



I. online communities as valuable examples

online community governance is substantially *user-* and *community-* driven even though many communities are hosted on *platforms*.

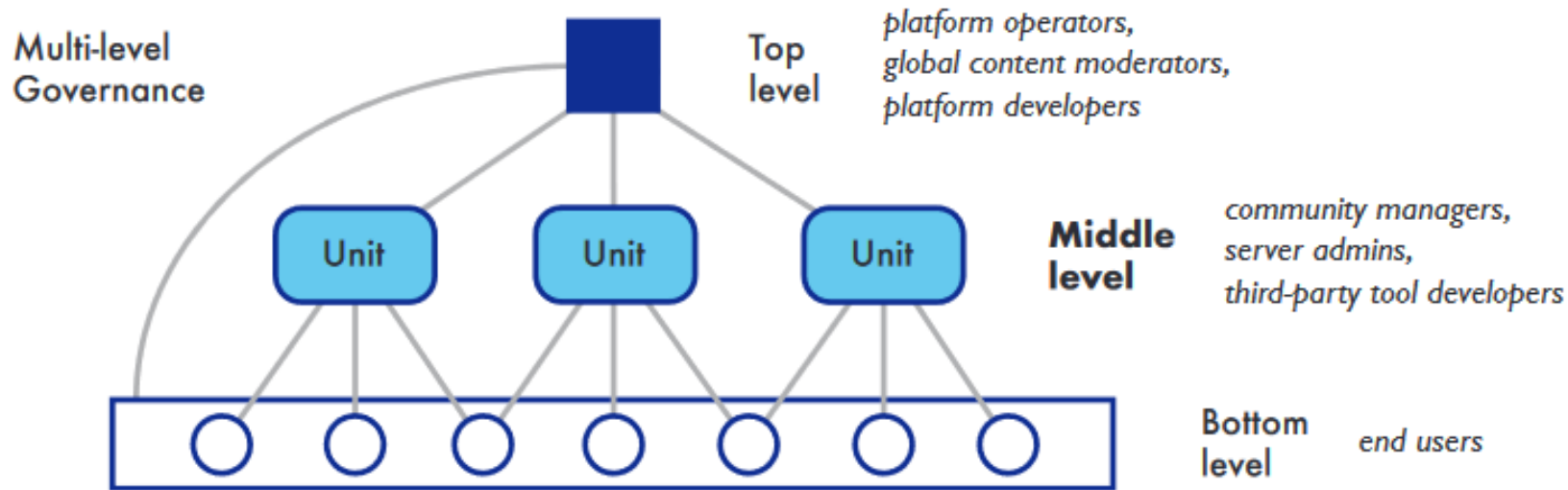
- User mechanisms of reporting and flagging
 - Volunteer moderators and teams
 - Community managers and leaders
- ... to manage content, contributions, behaviors.

community ecosystems



Note: see work by [Dr. Nathan TeBlunthuis](#) for a wealth of great theoretical and empirical work on ecological relationships among online communities.

tldr; decentralized systems of governance



Tensions of:
Autonomy?
Accountability?
Consistency?
Power?
Scale?

II. rules and rule-making

written rules matter in virtual contexts



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About Community

This community is a place to share and discuss new scientific research. Read about the latest advances in astronomy, biology, medicine, physics, social science, and more. Find and submit new publications and popular science coverage of current research.

28.0m
Members

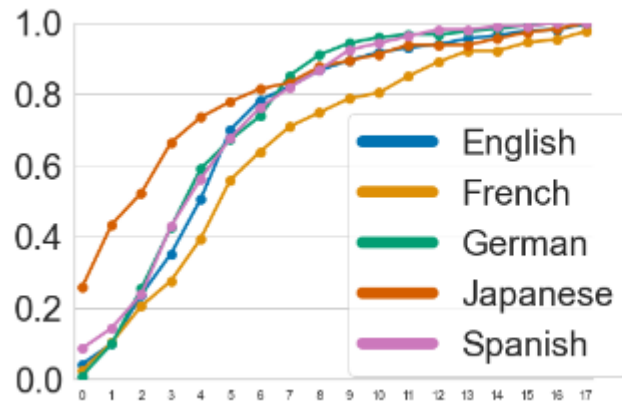
6.2k
Online

Created Oct 18, 2006

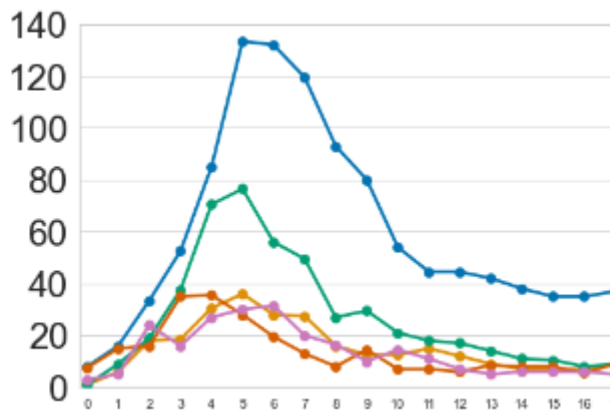
Matias ([2019](#)):

“Compared with discussions with no mention of community expectations, displaying the rules increased newcomer rule compliance by >8 percentage points and increased the participation rate of newcomers in discussions by 70% on average...”

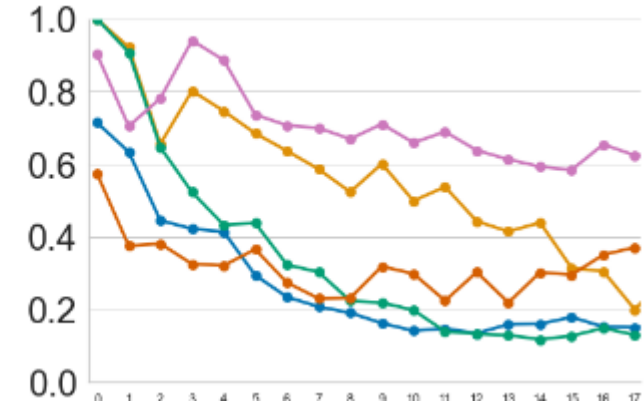
but rule-making often becomes less open over time — rules formalize ...



most rules are created early in the life of a Wikipedia language edition

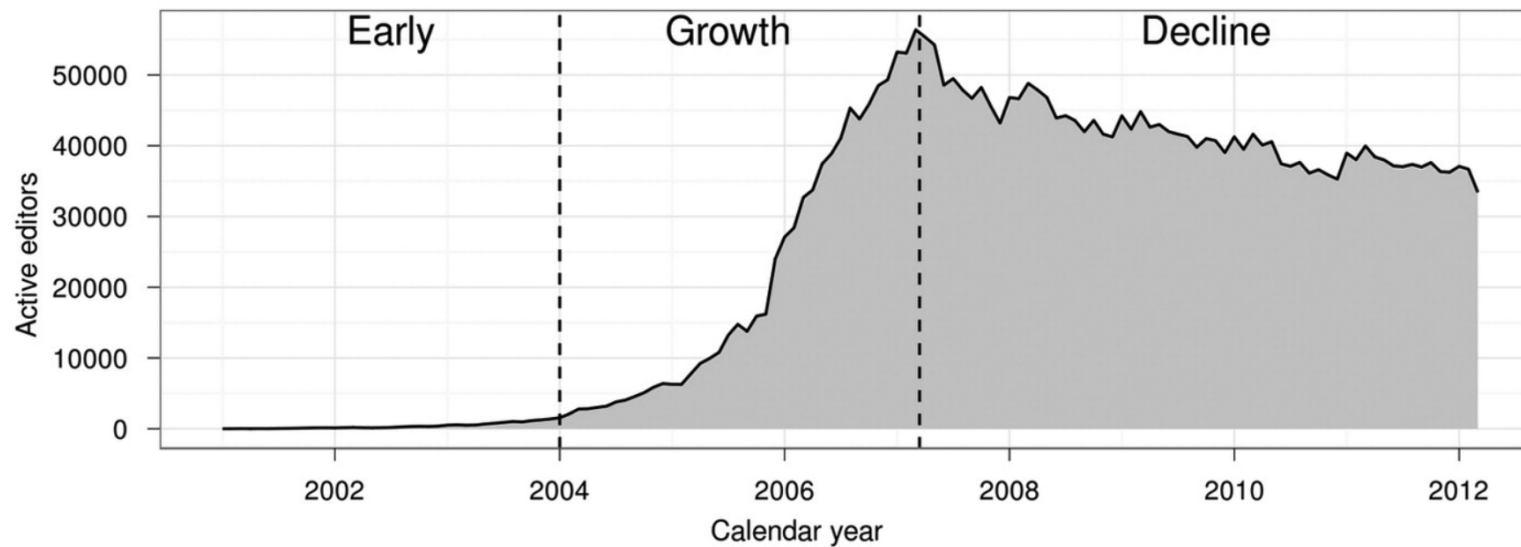


edits to these rules peak in early years before tapering down



edits to rules are increasingly to *discuss* them, not actually write them

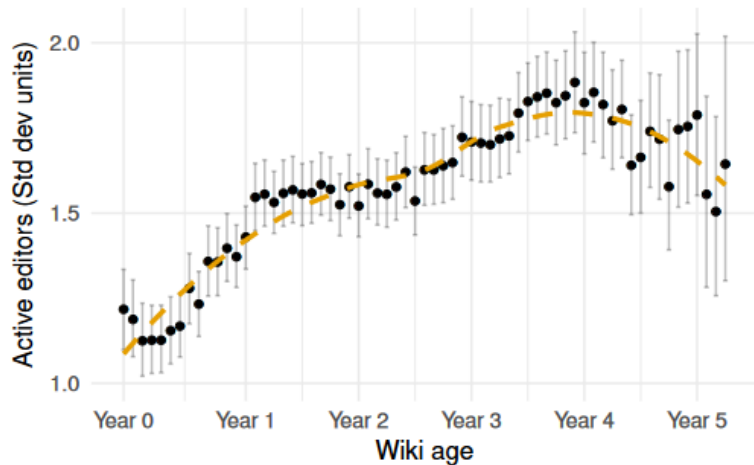
... reflecting a broader “rise and decline” pattern of participation



Note: Figure from Halfaker et al ([2012](#)) showing the rise and decline of English Wikipedia in terms of contributions

decentralized ≠ participatory

why “decline”?



- hierarchies develop among participants
e.g., newcomers vs. old-timers
- processes become formalized and less flexible
tensions with the need to record / log
- scale = more actors = more potential unknowns to manage, including bad faith participants
need to systematically manage
- stabilizing as an institution
maybe not a bad thing?

'The Tyranny of Structurelessness'

by Jo Freeman

The 'The Tyranny of Structurelessness' of first published in 1970 to address the need for organisation in the US women's liberation movement as it sought to move from criticising society to changing society. As such the examples used are specific to that movement but anyone who has been involved in a 'Structureless' group will be able to draw parallels with their own experiences. Often the most frustrating thing about progressive struggles is that each generation must repeat the mistakes of the previous struggles. Learning from the history of these struggles can save us having to make their mistakes ourselves. [AF, 2000]

See end for printing history and original introduction

Formal and Informal Structures

Contrary to what we would like to believe, there is no such thing as a 'structureless' group. Any group of people of whatever nature coming together for any length of time, for any purpose, will inevitably structure itself in some fashion. The structure may be flexible, it may vary over time, it may evenly or unevenly distribute tasks, power and resources over the members of the group. But it will be formed regardless of the abilities, personalities and intentions of the people involved. The very fact that we are individuals with different talents, predispositions and backgrounds makes this inevitable. Only if we refused to relate or interact on any basis whatsoever could we approximate 'structurelessness' and that is not the nature of a human group.

This means that to strive for a 'structureless' group is as useful and as deceptive, as to aim at an 'objective' news story, 'value-free' social science or a 'free' economy. A 'laissez-faire' group is about as realistic as a 'laissez-faire' society; the idea becomes a smokescreen for the strong or the lucky to establish unquestioned hegemony over others. This hegemony can easily be established because the idea of 'structurelessness' does not prevent the formation of informal structures, but only formal ones. Similarly, 'laissez-faire' philosophy did not prevent the economically powerful from establishing control over wages, prices and distribution of goods; it only pre-

vented the government from doing so. Thus 'structurelessness' becomes a way of masking power, and within the women's movement it is usually most strongly advocated by those who are the most powerful (whether they are conscious of their power or not). The rules of how decisions are made are known only to a few and awareness of power is curtailed by those who know the rules, as long as the structure of the group is informal. Those who do not know the rules and are not chosen for initiation must remain in confusion, or suffer from paranoid delusions that something is happening of which they are not quite aware.

For everyone to have the opportunity to be involved in a given group and to participate in its activities the structure must be explicit, not implicit. The rules of decision-making must be open and available to everyone, and this can only happen if they are formalised. This is not to say that normalisation of a group structure will destroy the informal structure. It usually doesn't. But it does hinder the informal structure from having predominant control and makes available some means of attacking it. 'Structurelessness' is organisationally impossible. We cannot decide whether to have a structured or structureless group; only whether or not to have a **formally** structured one. Therefore, the word will not be used any longer except to refer to the idea which it represents. **Unstructured** will refer to those groups which



have not been deliberately structured in a particular manner. **Structured** will refer to those which have. A structured group always has a **formal** structure, and may also have an informal one. An unstructured group always has an **informal**, or covert, structure. It is this informal structure, particularly in unstructured groups, which forms the basis for elites.

The Nature of Elitism

'Elitist' is probably the most abused word in the women's liberation movement. It is used as frequently, and for the same reasons, as 'pinko' was in the '50s. It is never used correctly. Within the movement it commonly refers to individuals though the personal characteristics and activities of those to whom it is directed may differ widely. An individual, as an individual, can never be an 'elite' because the only proper application of the term 'elite' is to groups. Any individual, regardless

**we see a tendency towards
formalization (and bureaucratization)
— moving from open to more closed
systems, even in participatory spaces.**

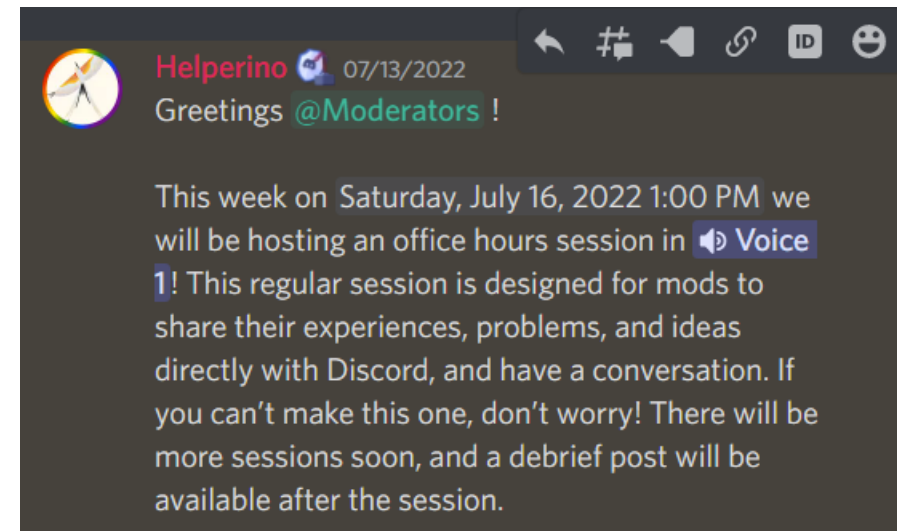
Not necessarily a bad thing but does mean mindfully developing
tactics and structures to support healthy dynamics of participation
in decision-making processes.

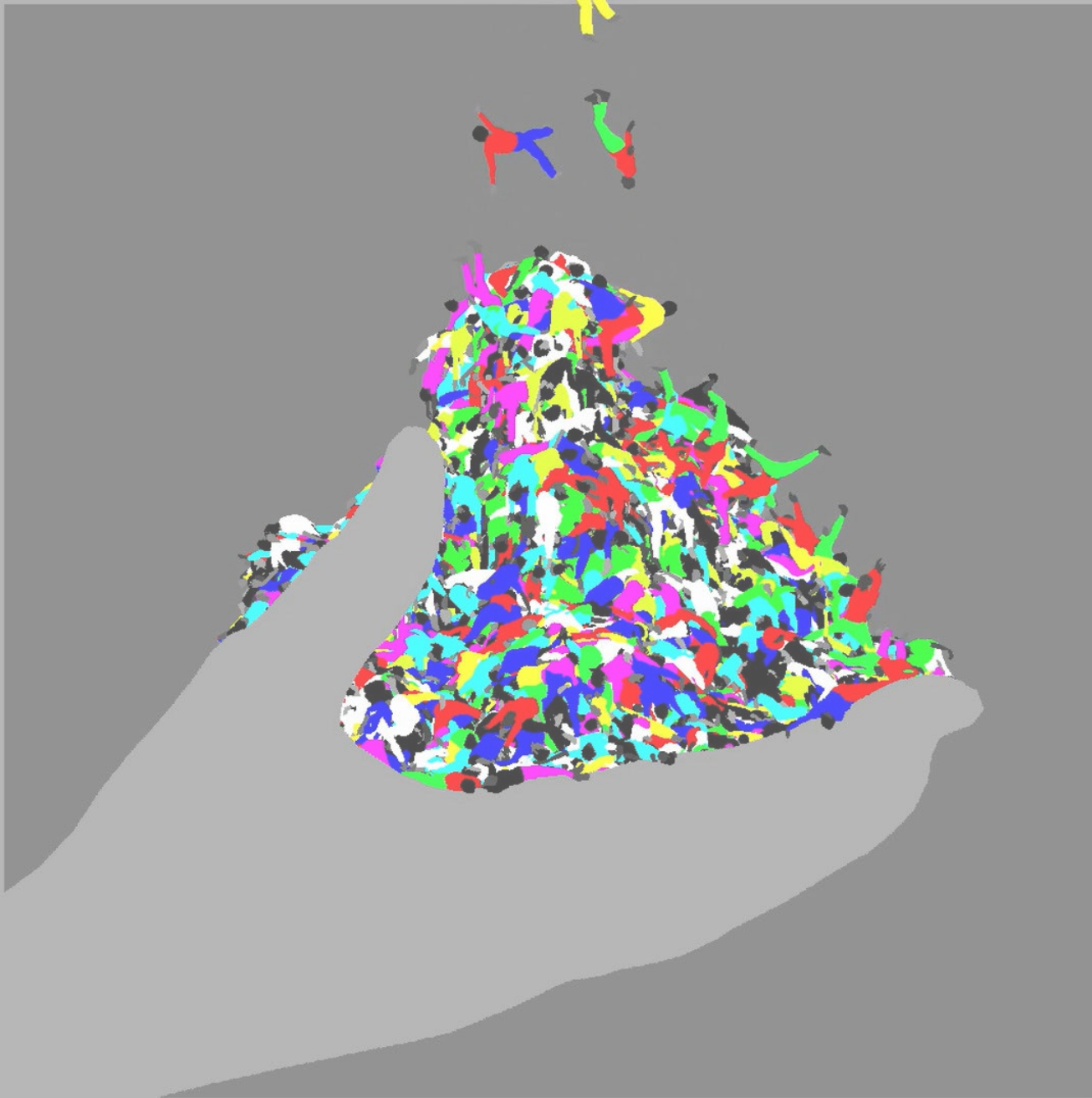
common challenges that online communities face in formalization

- Socializing newcomers
- Informal and unspoken hierarchies
- Imposing rules and values from top-down
 - Little opportunity to effectively internalize rules/values/etc.
 - No processes for changing or adding norms
 - No processes for handling conflict
- Finding consensus on values, rules, etc.
- No opportunities to allow for change, input, or transparency about rule development and enforcement
- Balancing open participation and effective governance at scale, esp. in the face of bad-faith actors

some principles for countering pitfalls

- Don't pretend there is no hierarchy in a social organization
 - E.g., onboarding newcomers
- Balance overarching principles with opportunities for communities to interpret them on their own
- Processes for handling conflict and change – and allow room for these processes to evolve as needed as well
 - E.g., Regular check-ins with community members' feedback and input





governance does not
have a magic social or
technological solution;
it is an ongoing process
of maintenance,
iteration, and dialogue

questions to consider

- How do newcomers to your community get to know the social and technological processes underpinning your space?
- Who gets to contribute to decision-making processes about rules in meaningful ways? How do people have different weights/leverage in these processes?
- Where does the decision-making happen?
- How is consensus about community values and rules reached and communicated? What about disagreement?
- How are community rules evaluated and/or allowed to change?

III. tools and technology

bots, platform design, algorithms.

technology *encodes* values

technology *formalizes* systems

technology *obfuscates*

how tech *encodes values*

“The bot comes with [default] rules that are generally applicable [...] you can just use these and don’t have to make your own rules. You can [also] make a custom rule and disable the defaults. And it has its own suggest point value [to weight each rule] too.”

how tech *encodes values*



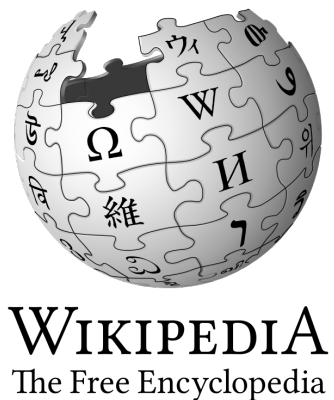
platform design choices...

- “karma” and upvote system
- content aggregation system
- limited reporting tools for users

...feed existing toxic online cultures.

how tech *formalizes systems*

online communities are social *and* technical systems at heart.

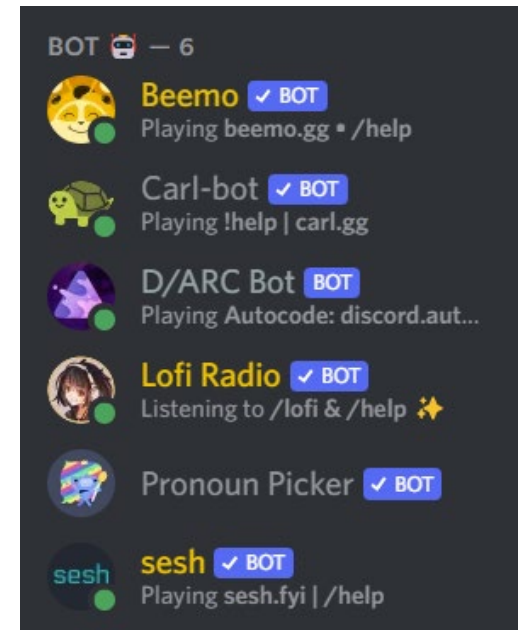


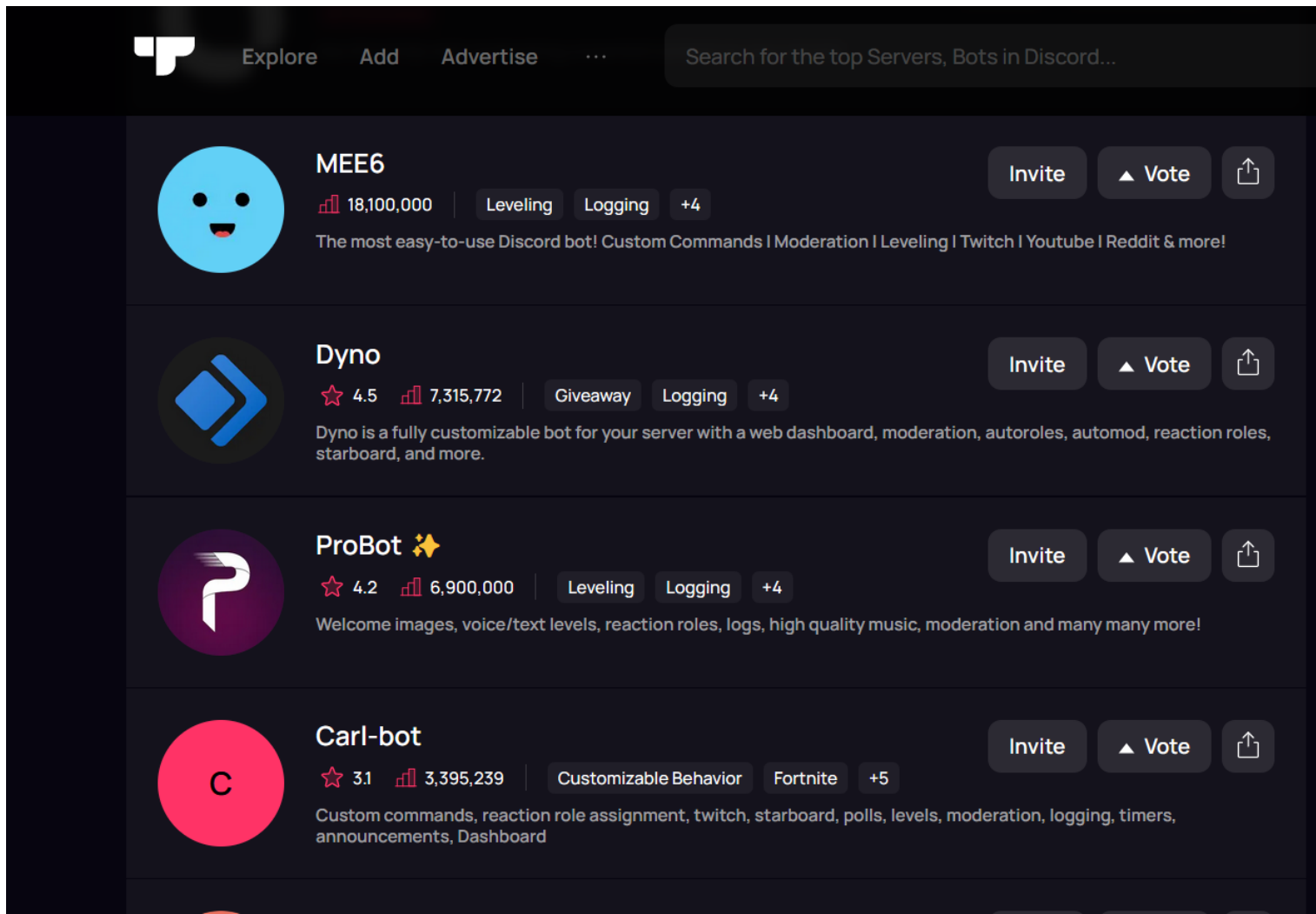
e.g.

Xqbot	
This user is a bot	
(talk · contribs)	
Operator	Xqt
Approved?	Xqbot_3
Flagged?	Yes
Task(s)	<ul style="list-style-type: none">• solve double redirects• fix interwiki• add missing references tag• maintaining featured articles
Edit rate	up to 12 edits p.m.
Edit period(s)	daily
Automatic or manual?	Automatic



e.g.





← Screenshot from top.gg, a site that lists and ranks bots developed by users and third parties for use in Discord communities

how tech *formalizes systems*

“Such systems do not eliminate the need for human labor, but instead transform the kind of work that takes place, as well as what it means to be a Wikipedian and participate in this community.”

Geiger ([2017](#)), on algorithmic systems on Wikipedia

how tech *obfuscates*

Nissenbaum ([1996](#)) “Accountability in a Computerized Society”:

1. The problem of many hands
2. The problem of bugs
3. Blaming the computer
4. Software ownership without liability

how tech *obfuscates*

Nissenbaum ([1996](#)) “Accountability in a Computerized Society”:

1. The problem of many hands
2. The problem of bugs
3. Blaming the computer
4. Software ownership without liability

Strategies of recourse:

- An explicit standard of care
- Accountability \neq liability
- Still have adequate policies for liability to reflect expectations

making the tech work

- A body of work argues for user- and community-led innovations, allowing for customization of tech/tools to meet community needs:
 - E.g., APIs = user-developed bots
 - *Modular* design and systems of governance tools
- But it is also critical to make these technologies transparent, responsive, adaptable:
 - Scope what the tech ought to do
 - Make clear who accesses and controls the technology
 - Documentation around the technology
 - Regular check-ins about the technology's performance
 - Practices for evaluating the technology
 - Practices for *changing* the technology



Figure 4.2: "Women sewing machine operators being filmed by two men for a time-motion study" 35mm negatives of photographs. Kheel Center for Labor-Management Documentation and Archives 5780 Box 84 Folder 5; Box 85 Folder 1

sufficiently and
deliberately organizing
(around) technologies
is critical to their
successful
implementation

questions to consider

- How does your community decide what to task to technologies and tools, and why?
- What are the infrastructures your technology/tools of governance depend on?
- Who does the *value* → *technology* encoding?
- How difficult is it to allow the values your technology encodes to evolve?
- How do you understand and evaluate how the technology/tool is performing + what it is doing?

IV. ending notes

to summarize...

Even open, participatory visions of decentralized governance tend towards *closed, hierarchical systems*.

By *encoding*, technology used to govern can be brittle and lack nuance; technology is a type of *formalization* even as it feels dynamic.

Technology *obfuscates* the meaning of values in practice; can make vague important things like accountability.

to summarize...

Even open, participatory visions of decentralized governance tend towards *closed, hierarchical systems*.

→ calls for iteration, consistent communication, maintenance, etc.

By *encoding*, technology used to govern can be brittle and lack nuance; technology is a type of *formalization* even as it feels dynamic.


→ calls for deliberate organizing to make sure the tech is working

Technology *obfuscates* the meaning of values in practice; can make vague important things like accountability.

→ calls for explicit standards of care around technological use, establishing strong norms of responsibility

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