

Collective Cognition Realtime Deck

[Open Research Institute: Pitch Jam](#)

The **purpose** of this document is a public place for patcon to gather thoughts on a recent project direction.

Hello there 🙌 -- If you're reading this, you're **welcome to contribute**. 🎉

- making edits/changes is appreciated, or comments if you want
- there's a feedback section at the bottom

Project

participation interface (data collection): [code](#) // [demo](#) // [storybook](#)

analysis backend (data processing): see valency-anndata below

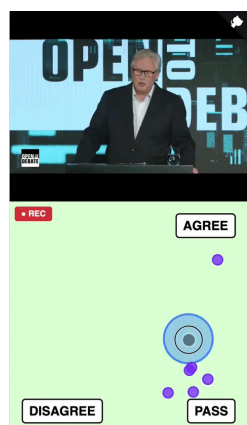
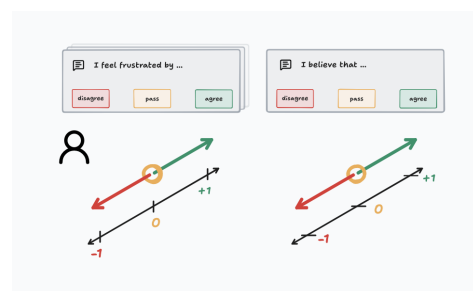
exploration interface (data foraging): #todo

The Pitch

hi, I'm patcon. I'm an ex-biochemist, a civic tech community organizer of 10 years, and an independent collective intelligence researcher with a tool called Polis since 2016. I'm interested in origin of life research that understands aliveness as processes composed of cycles, compartments, and diversity in all strata of information.

Motivation

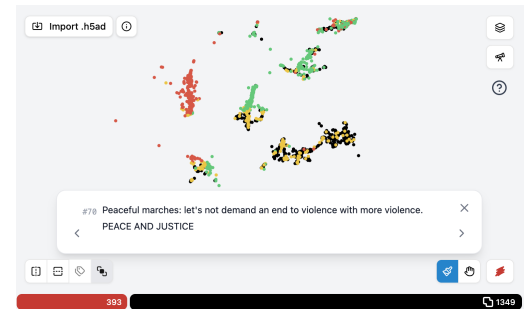
VALENCE. I'm interested in the way people feel called to move toward and away from information. This might be agreement/curiosity on one end, or dissent/repulsion/boredom on the other. This is not unlike bacteria moving up chemical gradients toward nutrients or down them away from toxins.



BROADCAST. I'm interested in the wasted potential of broadcast. We squander our attention on systems and actors that pretend to mirror us, but so rarely reflect who we sense ourselves to be. We have the capacity for complex and nuanced internal reactions. These reactions might not always be wise in our most atomic

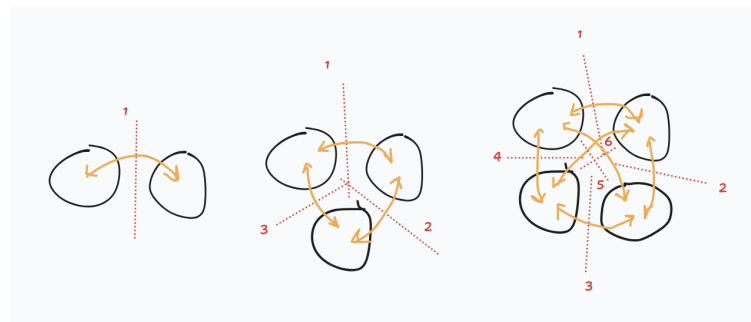
individual sense, but what if in aggregate they can be of service to our sensemaking?

MAPS. What if we could see ourselves in a map more complex than the left-right number line of politics? What if we could use the felt experience of our assent/dissent to place ourselves within a map of human perspectives, in response to any stream?

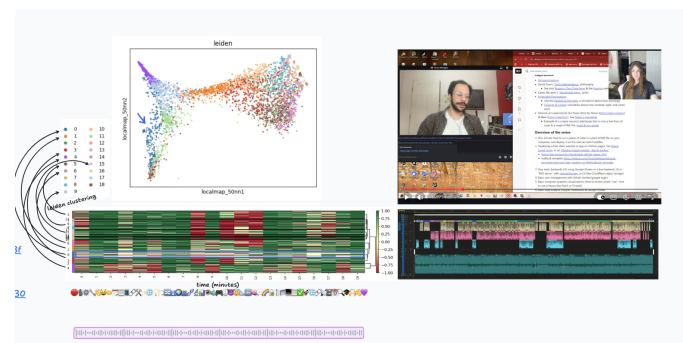


BOUNDARIES. If the world was truly left and right, us and them, this would mean a single, simple boundary. One site of tension, over which our differences must be resolved into a shared path forward, through conversation. But what if there are more dimensions than 1D? What if those new dimensions hold more groups than we can currently conceive and see together. And if there are more

groups, does that not mean there's a combinatorial explosion of boundaries that must exist, each one an essential conversation. Three groups produce 3 boundaries. Four produce 6. Five produce 10 boundaries – 10 conversations over which to negotiate the shared path forward.

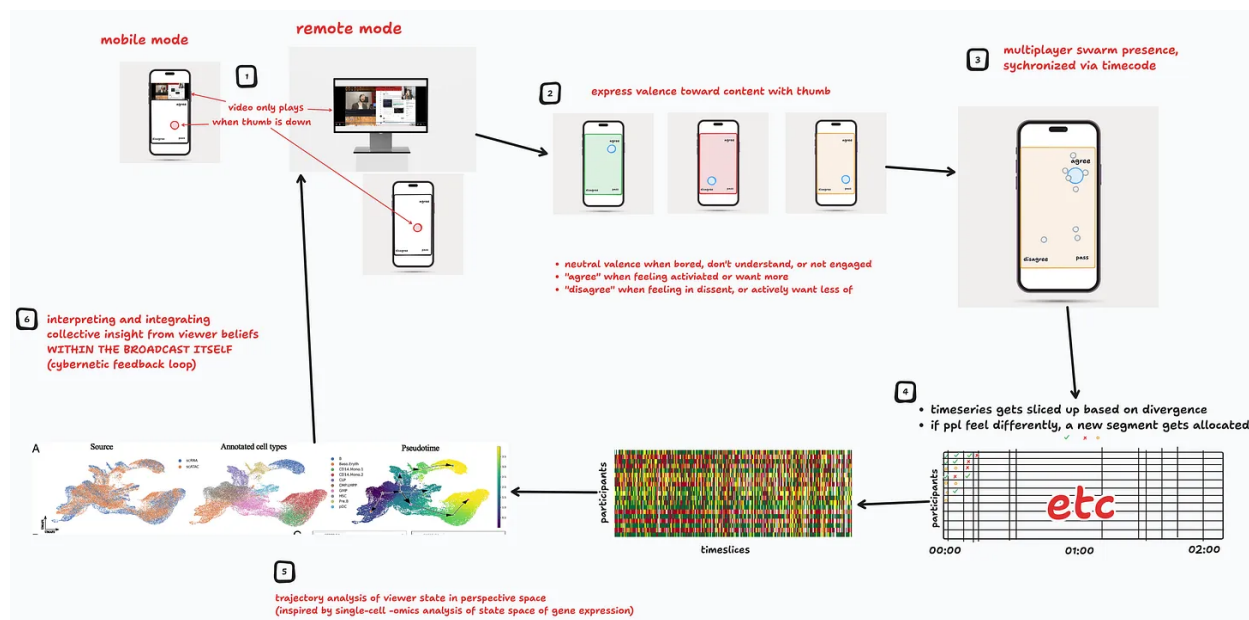


STRANGE-LOOP COMPOSITION. What if the hosts of our broadcast media could point the camera back on us, and show us the high-resolution and up-to-date realtime map of who we are together? And what if these hosts had an interface to help us understand this shiny new surface of collective introspective, dialing down or selecting facets of our group identity, like an artist mixing tracks? Could they guide us through interpretation of the self we see? What might we be capable of, if one morning we looked out into a broadcast, and together saw a red mark floating on our collective forehead?



Research Direction

I'd like to move from making [maps of human perspectives](#) to making the equivalent of a digital audio workstation (DAW) for mixing audience perspectives into an interactive experience. The goal is to allow broadcast hosts and live event hosts to compose experiences live, and explore the perspective space of the audience alongside that same audience. I'd like to convert a [continuous stream of valence reactions](#) (toward/neutral/away feelings) into an audience map that groups people with similar patterns of reaction together.



This effort will require

- distilling familiar UI and UX affordances from DAW software
- figuring out how to incorporate and move between semantic space (map of content) and perspective space (map of people)
- learning how to make it fun and visual (maybe even audio)
- easily amplifying chat and interaction from different parts of the map ("I want to hear from the chat coming from this side of perspective space")
- stretch goal: how can the driver role be passed through the crowd like a mic
- stretch goal: how can this be used at live events in the public square

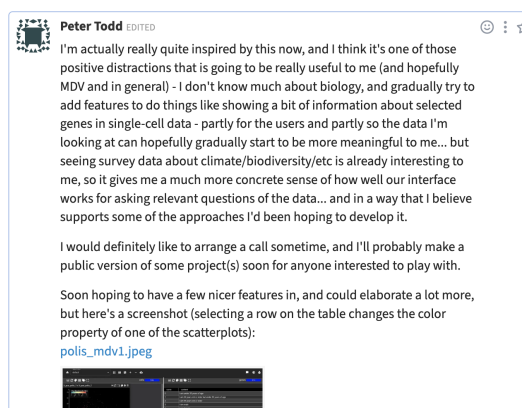
Why Me

I'm an expert facilitator. I've been coorganizing anarchic weekly civic hacknights of 50-70 attendees for almost a decade. Sandy Pentland's "Social Physics" is my community organizing bible, along with Emergent Strategy. We haven't missed a single

week in over a decade of events. Our bus factor is phenomenal, and you need to kill like two dozen people to stop our events from happening. I understand the subtle forces that act in the space between people.

I have the conceptual biological underpinning to continue to transpose mathematical techniques from single-cell genomics to collective intelligence. These techniques have been developed by the large scientific community at great cost, and put through their paces in disease intervention. I know how to port them to the domain of collective intelligence. I understand living processes

I've been a foremost international expert on the Polis collective intelligence tool for almost a decade. I've given workshops on it at many conferences, and been consulted by national governments. I've hosted weekly calls for years. The ex environment minister of Panama called me his mentor. Puja Ohlhaber once introduced me as "a deep thinker in prosocial mechanism design". I've met with and been in dialogue with the creators of leading dimensional reduction algorithms, like UMAP and PaCMAP. I've [contributed code](#) to these projects. I've built my own research tools ("valency-anndata"), and received praise from other tool builders in the single-cell -omics community.



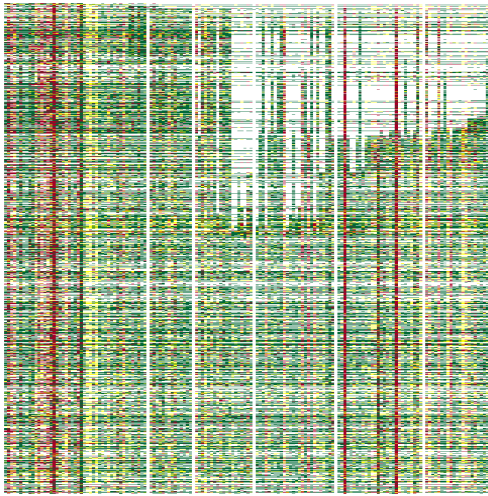
Budget

I currently live on very little. I eat cold oatmeal and instant coffee. I work in the public library. I live rent-free on a cot in my sisters basement, in exchange for childcare. I steal groceries when my funds get low and AI credits feel more important.

I live on about CAD\$15K/yr. I would like to live better.

Living in Toronto should require at least CAD\$50,000/yr. I'd like to buy a new macbook to [run new dimensional reduction algorithms](#) in realtime: +CAD\$3500. A Claude Max 20x plan would mean I could build as fast as I'd like: +USD\$2400.

Sketches



(See more [example datasets](#))

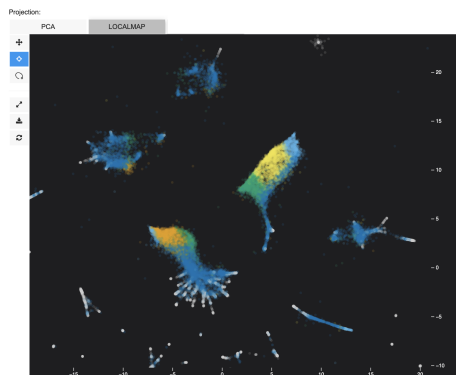
Polislike *participant x statement* reaction matrix:

23k rows = 23k participants

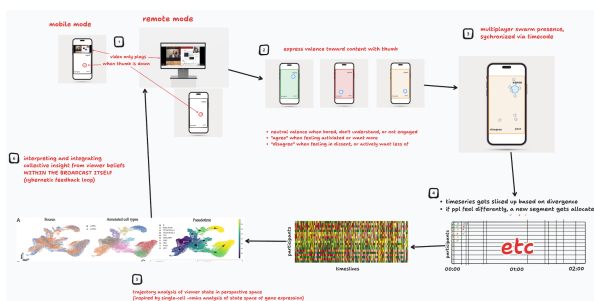
160 columns = 160 statements

reactions = agree (green), yellow (pass), disagree (red).

Comparable shape, but we would work on continuous stream of feedback: variable-length timecode segments, segmented dynamically by divergence/variability of reactions.

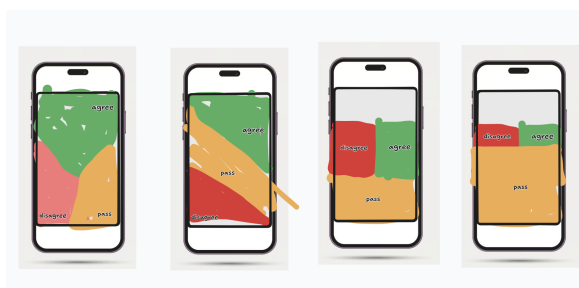


Above data has structure that can be dimensionally reduced to show value manifold on the topic under discussion.



https://www.tldraw.com/p/CiUJ-h4CQtZct1zsVDzkY?d=v-608_-512.5025.3370.page

Overview of flow

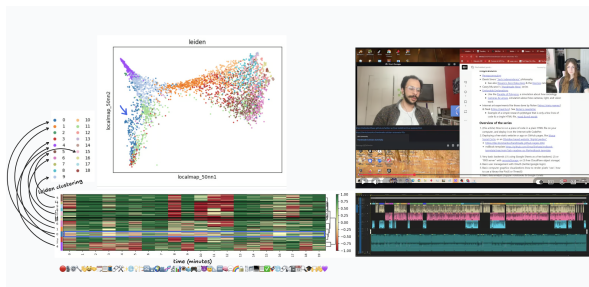


https://www.tldraw.com/p/CiUJ-h4CQtZct1zsVDzkY?d=v-308-685.3864.2591Y5RvklK6qCnZ51EfoD_9F

While experiencing something, participate by reacting “away vs toward” via no-look touch interface on mobile.

Can be *realtime*-synchronous (live event, live broadcast) or *timecode*-synchronous (recorded event, podcast).

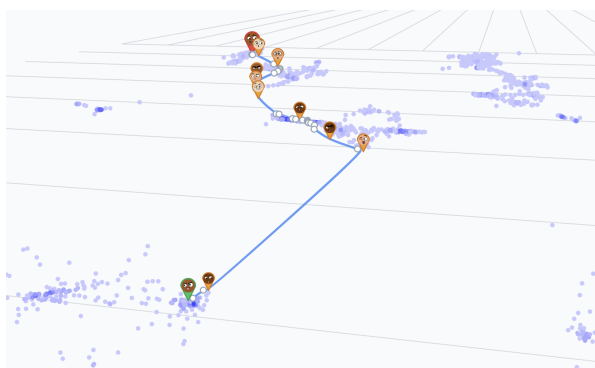
See swarm of other watchers, realtime or timecode-locked.



<https://www.tldraw.com/p/CiUJ-h4CQtZct1zsVDzkY?d=v-6532-2708.10934.7333.JXruJ59TWCv9mzZZu8aQ>

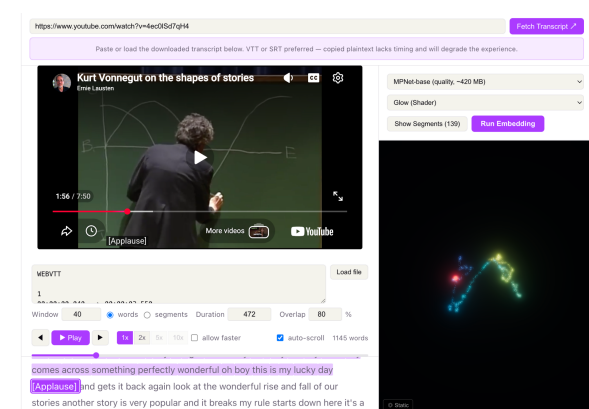
mockup of realtime exploration deck, for host and viewers to explore emerging difference, and understand positionality of other viewers/comments/speakers.

Tracks are replaced with “clusters” who have shared patterns of reaction to stream.



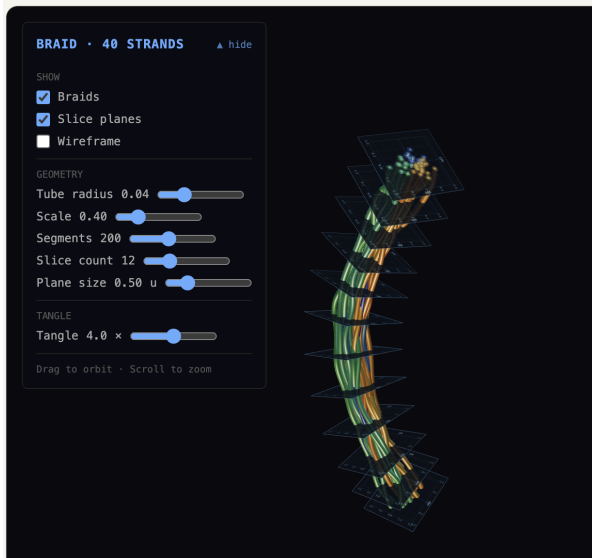
<https://main--68c53b7909ee2fb48f1979dd.chromatic.com/iframe.html?id=experiments-routingexperiment--navigation-mode>

Plotting routes between far corners of perspective space, across the greatest dimensions of difference in audience reactions. Whether passing through space of urban attractors or rural outsiders, hosts can “wander” through the diversity that presents itself in response to the broadcast. Like a [wo]man-on-the-street interview, they can invite audience members to chat/speak/video call in, with their unique perspectives for all to learn from.



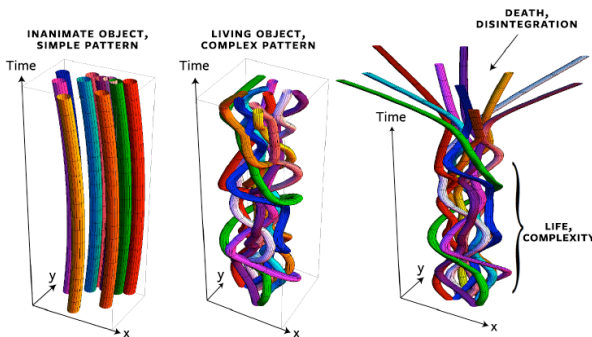
Carving linear narrative paths through 3D semantic space, tracing the shape of stories in a certain generalized language/cognitive environment. This is done by embedding a rolling window of text through the transcript of any spoken narrative. Perhaps not unlike biological peptide strands folding into active 3D protein shape, in the right biochemical environment.

<https://patcon.github.io/egregorigami-exploration/?videoId=4ec0lSd7qH4#v5>



<https://claude.ai/public/artifacts/7f7161c3-3cdb-49e2-9bff-b21b6a972d12>

While the narrative can carve through semantic space, perhaps we can also understand the reactions of an audience as perspective map cross-sections of that narrative arc – each slice showing the groupings of participants based on the larger patterns of how they respond to a stream of narrative stimuli. And if we render each participant as a strand in the cord, we perhaps get a braid structure of sorts, moving through semantic space, the pattern of which tells a story of all the difference facets of identity that a story hit in the listening audience.



<https://nautil.us/life-is-a-braid-in-spacetime-234729>

See Tegmark's [Life is a Braid in Spacetime](#) article from 2014.

the riskiest live demo i've ever pulled off:
2000 phones synchronized with light and au
i'll never forget this night.



Slovakians choose Europe and want to
so much.

P.S. This isn't the US or any other coup



Synchrony is a powerful force for humans. Even superficial synchronization which has nothing to do with our internal compass can be powerful. Synchrony that has to do with something deeply felt inside of us all, that might be even more powerful.

<https://x.com/freemanjiang/status/2036354717903651276>
<https://x.com/victoriaslog/status/1882890410512855119>

Background

Post: **Valence swarming & perspective maps**

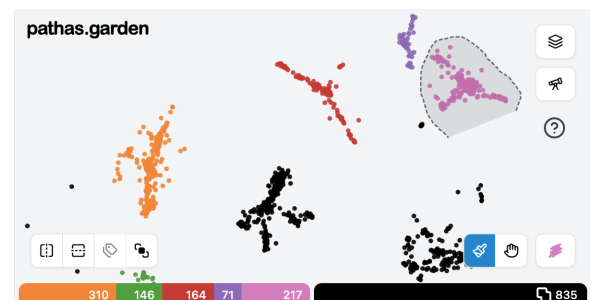
<https://nodescription.substack.com/p/valence-swarming-and-perspective>

Building On

perspective map explorer

Google Maps for human perspective cartography,
extending concepts of Polis.

[code](#) // [demo](#)



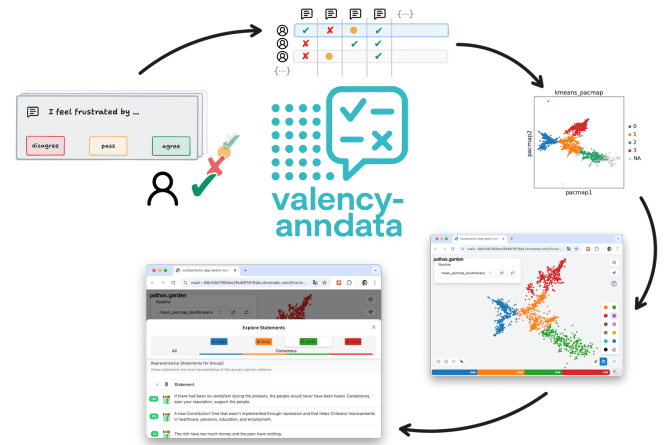
Every dot on the map is a person who reacted to crowdsourced statements related to complex issues – agree, disagree, pass – on sometimes 100s of statements. Dots make land, land shows differences in patterns of reaction and belief. Paint to outlines groups. Click groups to see what beliefs set them apart. View and create arbitrary data layers over people to better understand.

valency-anndata

A research toolkit for making sense of polislike human reaction data.

[code](#) // [docs](#)

A tool for processing, dimensionally reducing, and sensemaking around high dimensional agree/disagree/pass valence data. Easy import of data from Polis and other sources. Easily analyse with bleeding edge math tools. Easy export to standard formats that can be loaded into other exploratory tools (e.g. perspective map explorer).



To Process

- Messier doc on “Marty Party” game mechanics
<https://docs.google.com/document/d/15ROmlU5F-thpXbCAX-ricfprGsfzMo1-7CoaVtXn3ug/edit?tab=t.0>
- <https://x.com/i/status/2036354717903651276>
- <https://x.com/victoriaslog/status/1882890410512855119>
- <https://github.com/hanxiao/pacmap-mlx>
- <https://github.com/hanxiao/umap-mlx>
- <https://arxiv.org/html/2603.04035v1>
 - <https://github.com/hanxiao/mlx-vis>
- <https://patcon.github.io/egregorigami-exploration/?youtubeId=4ec0lSd7qH4#v5>
- <https://claude.ai/public/artifacts/7f7161c3-3cdb-49e2-9bff-b21b6a972d12>
-

Inspiration

- <https://fieldofvision.org/do-not-split>
- <https://edwardcarpenter.net/ectd1.htm>
- <https://www.akpress.org/emergentstrategy.html>

- <https://en.wikipedia.org/wiki/Rewilding>
- https://en.wikipedia.org/wiki/Sunflower_Student_Movement
- <https://g0v.tw/intl/en/>

feedback

- patcon: any critique, confusion or expressions of interest are welcome!
- ...
- ...
- ...

about patcon

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