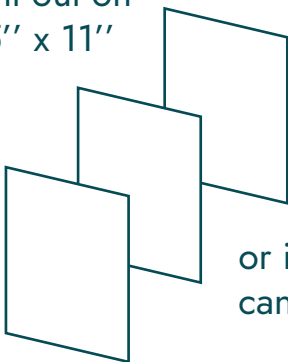


This is a field
guide where you
construct the field.



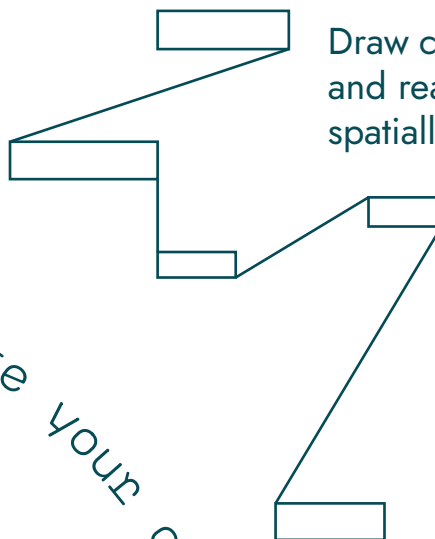
It contains ideas and
connections for charting the
terrain of the digital real.

Print out on
8.5" x 11"

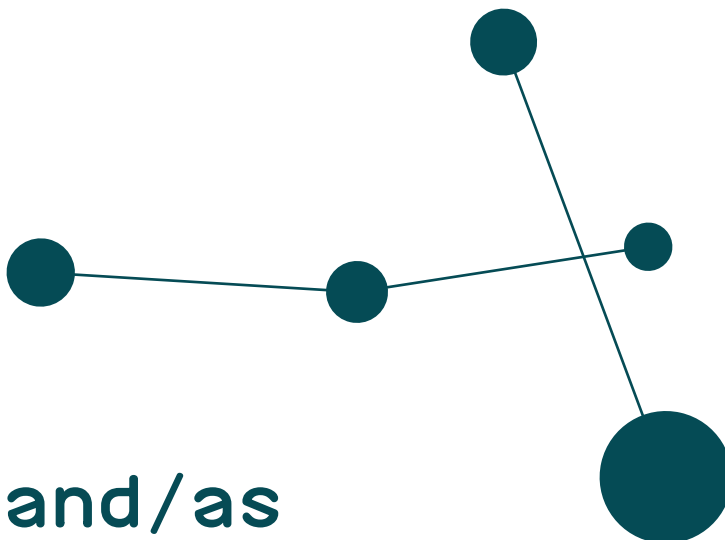


or import to a software
canvas (like Miro).

Draw connections
and rearrange
spatially.



Add ideas and create your context.



The Field Guide to

**DIGITAL and/as
PUBLIC SPACE**

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The term *digital real* emerged over the course of this project as a way of acknowledging the inseparability of digital technology and physical space. We might have even shortened it to just the *real*. Though it's useful at times to distinguish offline from online, physical from virtual, IRL from URL, much of the play of this project involved trespassing any imagined boundaries between them. The digital and physical are not hybridizing — they are just separate aspects of a singular process. Every virtual world is always a physical experience, just as every real world experience is already affected, if only indirectly, by digital technology.

The Digital Real

This field guide is a catalyst for readers to sense what public spaces might yet do in an age of pervasive digital technologies. It's a collaboration between From Later and The Bentway, with design by Nomadic Labs, documenting the Digital and/as Public Space initiative during the summer of 2021. During that time, a collaborative research channel was opened, a game for sensing, navigating, and making public space was developed, and a set of micro-residencies with artists, designers, developers, and writers was hosted. Throughout this guide, the projects of the micro-residencies are documented and framed alongside concepts and techniques that emerged from the research. Varied in their approaches and materials, the diversity of projects helped inspire the form of this guide: a draft-positive, polyphonic* approach to the futures of public spaces and digital technologies.

Unlike a typical field guide, this guide doesn't provide a rigid set of categories or map for the reader to follow. As the media scholar Shannon Mattern has noted, field guides for digital landscapes have exploded in recent years, but risk inheriting colonialist modes of looking and collecting.** Instead of providing readers with a sense of mastery, this guide encourages readers to think-feel the forces and possibilities of public spaces and digital technologies in all their singularity. Rooted in the site-specificity of The Bentway, a public space

under the Gardiner Expressway in Toronto, Canada, on the treaty lands of the Mississaugas of the Credit and the traditional territory of the Huron-Wendat, the Haudenosaunee, the Métis, and many other Indigenous nations, this guide looks only to provide a few concepts or techniques to be sensed or enacted elsewhere. Everything in this guide is subject to transformation in its translation across sites.

The guide can be read straight through, or rearranged. It is designed to encourage new connections. It can be printed out and rearranged on a floor, explored as a group, or imported into a digital whiteboard like Miro or Mural and recombined. It is not meant to be a final statement or set of 'best practices,' but a starting point for catalyzing activity. Public spaces are ongoing, unfinished, creative processes to be experimented with. They don't just exist — they're made over and over in the daily interactions between publics.

* Paul Graham Raven, "From Predictive Product to Polyphonic Practices: Techniques of Futuring Beyond Business-as-Usual" (2021) <https://www.alluvium-journal.org/2021/06/04/from-predictive-product-to-polyphonic-practices-techniques-of-futuring-beyond-business-as-usual/>

** Shannon Mattern, "Cloud and Field: On the Resurgence of 'Field Guides' in a Networked Age" (2016) <https://placesjournal.org/article/cloud-and-field/>

THE FIELD

Mapping

There are many ways to design a map. A map is an abstraction of relations between locations. Abstractions can be spatial — they might represent distances like kilometres. Or they might represent the time between locations, like subway maps. The distance between stations on a subway map represents the time between them, not their locations in space. Maps might also not aim at representing spatial or temporal relations at all. They might abstract psycho-social relations, as the *dérive* maps of the Situationists did. This French avant-garde group of the 1960s politicized the aesthetics of mapping with their urban *dérives* — aimless walking through cities that paid attention only to how their senses and desires pulled them in new directions. Afterwards, they would stitch maps of their *dérives*, to see whether individual desires overlapped. Did their cities have shared psychogeographies? Do yours?

We use maps because they help orient the relations of our world. They help us do things in space and time. But sometimes our maps — our representations of relations — limit us. This is especially true in fast-changing situations. When confronted with something new, we draw on familiar frames of reference to situate ourselves. What we've already experienced serves as a model for what we're about to experience. We import past maps. But those past references aren't always a good guide to what's emerging. Using past references can cause our anticipations to predetermine our experiences. We lose track of what's changing because we expect it to be the same.

When we think about what an online public space could be, or — vice versa — how digital networks could shape offline spaces, we often import references from elsewhere. We often

frame social networks and forums as digital public squares, for instance. But a physical square enables a particular atmosphere of tension, presence, and visibility between people. Online, those atmospheres emerge in different ways. As the designer Aaron Lewis has noted, the interfaces for navigating digital spaces are wildly different — we append our real life fingers, eyes, and bodies with cursors, keyboards, and avatars.* These elements change who and what we perceive. It's not clear that the public square metaphor makes much sense of what's happening online.

So how does digital technology change public space? And vice versa, how does public space change our understanding of digital worlds? This guide doesn't answer that in any definitive way. Instead it tries to condition perception for the particularities of whatever site you're in. It provides cues for situating oneself among the possibilities and affordances of digital techniques. It is, as the anthropologist Tim Ingold has described it, a situation in which you're mapping as you go, rather than using a map.** We need to sense the potential of what could be, not chart what already is.

* Aaron Z. Lewis, "Inside the digital sensorium" (2021) <https://aaronzlewis.com/blog/2021/01/17/inside-the-digital-sensorium/>

** Tim Ingold, "Up, Across and Along," *Lines: A Brief History* (2007) <https://www.routledge.com/Lines-A-Brief-History/Ingold/p/book/9781138640399>



you go

Before we think about how digital technologies affect public spaces, on or offline, we face a subtle question: what makes a public public? It might help to identify a range of things with public prefixes — public spheres, public goods, public health, or public spaces. At a higher level there's even *res publica*, the latin phrase at the root of republic, the form of government in which power is held by the people. And we can note that what's common to them all is that they're open, meaning no one can or should be excluded, and that they mostly, but not always, operate with a non-market logic, because their use increases their value rather than depleting it.

That is, they are open to the public and produce non-rivalrous benefits for it. But still, what exactly is that public? Is it just a collection of people? If everyone in a city, a region, a country were gathered in a room, is this the public? But then we miss the process by which that group of people actually created the spaces, spheres, and goods we

call public. We miss how not everyone had the same kind of voice in a public sphere, had access to public spaces in the same way, or agreed on what made public goods good. By assuming the existence of publics ahead of time, we miss the contests and conjunctions that go into making publics.

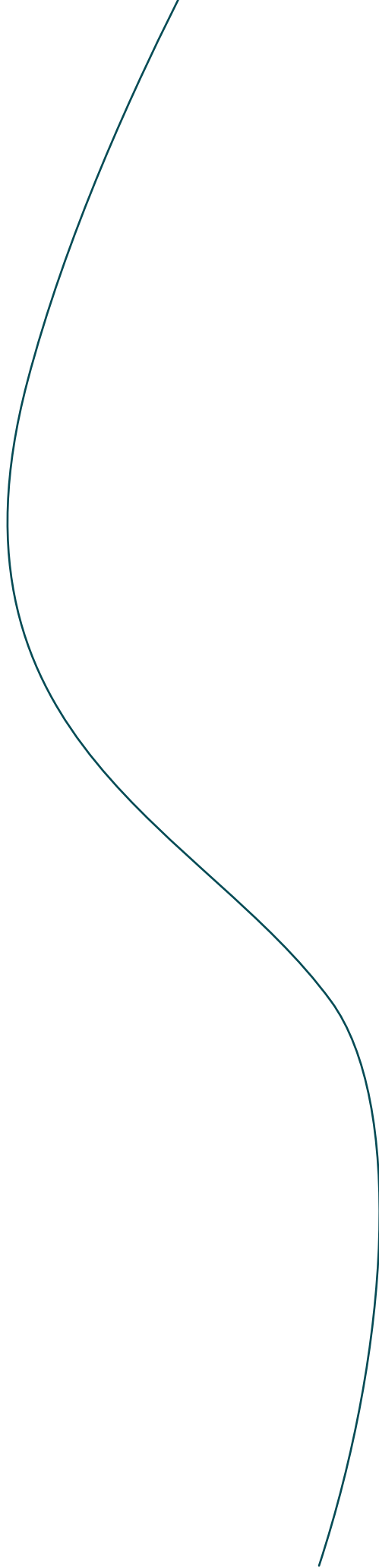
Publics emerge from the relations *among* people over time. Every public is in continuous variation. It is shaped by what conditions the relations across it. What are those? In public spaces, all sorts of invisible forces — laws, aesthetics, social norms, collective histories, economic considerations — shape interaction and the use of space, as the architectural professor Kristine Miller has noted.* That is, public space is not the space itself. It's what animates the space with relations between people.

* Kristine Miller, *Designs on the Public: The Private Lives of New York's Public Spaces* (2007) <https://www.upress.umn.edu/book-division/books/designs-on-the-public>

PUBLICS ARE MADE

Like gardens, public spaces cultivate the conditions for something public to happen.





Protocols are the rules for how something happens. For instance, technical protocols shape the movement of information online, while social protocols shape forms of interaction. All kinds of protocols condition public spaces, shaping how we interact. That's why protocols are so easy to go unnoticed – because they take place without us realizing, at least, if they benefit us. Who gets to speak in a public space and with what kind of voice? Whose voices are amplified, and which dampened? Who is made visible, or invisible, or too visible? Protocols shape public space by conditioning who can engage and how.

Protocols don't always need to be formal to be effective. Informal norms, habits, and expectations shape what happens in a public space. There are no rules, for example, for how to start a conversation. Or how to share a space. But there are informal protocols. And there are contests over what's appropriate, which change over time, catalyzing different possibilities for interaction in public spaces.

What happens when digital technologies enter the picture? One change is that certain communication protocols get executed as code. TCP, HTTP, FTP, VoIP, and RSS are just some of the technical protocols shaping the movement of data online. These protocols shape the exchange of information, but also, for instance, social architectures of client-server relations. They shape who hosts and who accesses information. Technical protocols condition social forms. But they also create opportunities for public forms of digital action. Take the art group Electronic Disturbance Theatre. In the mid-1990s, they built a distributed denial of service (DDoS) tool called FloodNet.* By flooding servers with requests from users who downloaded the tool, they could temporarily overload and shut down websites as a form of political protest. It replicated the civil disobedience of the sit-in in digital form, transforming a private online space into a site of public contest.

* Colin Lecher, "Massive Attack," (2017) <https://www.theverge.com/2017/4/14/15293538/electronic-disturbance-theater-zapatista-tactical-floodnet-sit-in>

PROTOCOLS SHAPE SPACE

The vibrancy

of public space

becomes visible

in

contests

over

protocol.

Accidental publics

When we talk about digital public spaces, we often think of social media networks. Networks like Facebook, which connect us with people we know, like friends, co-workers, and acquaintances. And networks like Twitter, which connect us to people we might never even meet. Such venues are often framed as digital public squares. Maintained and moderated by private companies, they're not public in the sense that they're accountable to their users. But because they enable new kinds of relations between people, known and unknown, they catalyze a kind of publicness. They enable people to do things together — to share thoughts, images, and sounds at a distance. And those pieces of shared media trigger cascades of feeling. They make us collectively feel things about the world at a distance, conditioning the ways we act in it.

So there is something public in social media, only it's accidentally public, insofar as the networks are not designed to facilitate more deliberative publics. They are designed, instead, to keep users engaged, because their survival depends on capturing the attention of users and serving it to ad buyers. And in order to capture attention, they promote what triggers feeling, because feelings can't be ignored. Shame, envy, and inadequacy, as media critic Geert Lovink has emphasized,^{*} but also joy, intimacy, and belonging are all encouraged by interfaces of liking and sharing, algorithms

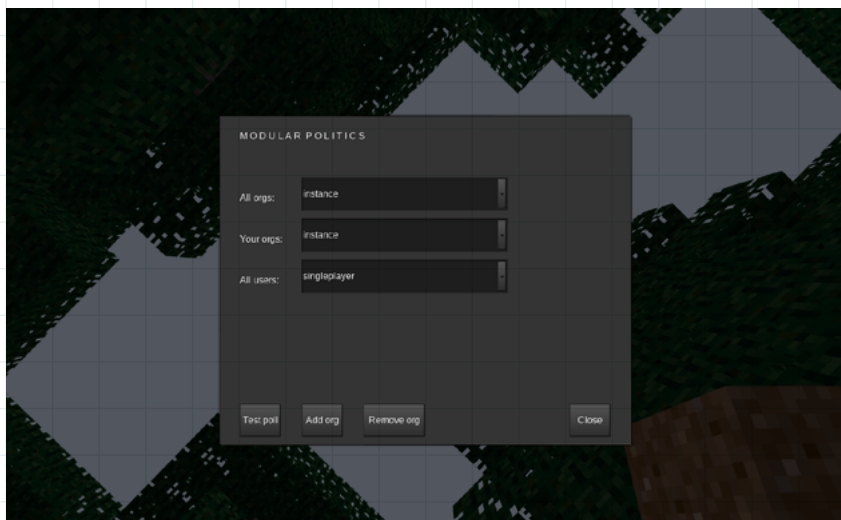
of sorting and serving. The result is that social media networks *accidentally* create webs of public feeling. But in the process they reveal something that's always been true — that our private feelings, our innermost bodily sensations, have always been partly public.

Who determines how such atmospheres of public affect take shape? Could more conscious designs be possible? Such projects might aim to deliberately enact new values across their networks, like the codes of conduct used by open-source projects to encourage inclusion.^{**} Or they might bring wider groups of stakeholders into the process, as community governance models do.^{***} Digital networked publics are not new town squares, but new ways of modulating collective capacity and sensation. Their scale and intensity has changed what a public is, because it has changed what a public can do — both how it is affected, and what it can affect.

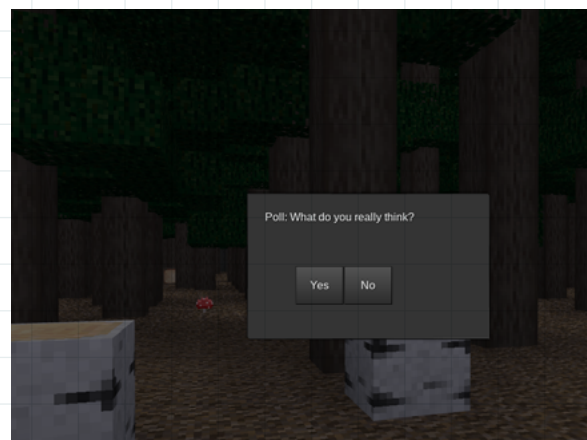
^{*} Geert Lovink, *Sad by Design: On Platform Nihilism* (2019) <https://www.plutobooks.com/9780745339344/sad-by-design/>

^{**} Klint Finley, "The Woman Bringing Civility to Open Source Projects" (2018) <https://www.wired.com/story/woman-bringing-civility-to-open-source-projects/>

^{***} Gregory Landua, "Community Stake Governance Model" (2019) <https://medium.com/regen-network/community-stake-governance-model-b949bcb1eca3>



Deep micro-design



Modpol

Nathan Schneider
and Luke Miller

As Nathan Schneider has noted, online spaces are often governed by an implicit feudalism: with rigid hierarchies, draconian punishments, and no accountability through elections, due process, or term limits.* Think of the typical online forum and the power given to moderators. We accept the power of these platform admins and mods to ban and silence users as given, without noticing how strange such roles would be if applied to other areas of life. But what if we could organize online life differently?

An experiment in online self-governance, Nathan Schneider and Luke Miller are prototyping Modpol (short for modular politics), an application that runs on top of the open-source, community-created, world-building game Minetest. Modpol enables users to invent collective design-making capabilities within the game, while aiming to make those tools portable to other online spaces. It does this by embedding principles of *modularity*, *expressiveness*, *portability*, and *interoperability* within the code.** Although still a work in progress, a number of design decisions have been made to shift from the feudal defaults to more consensual and communal ones, like:

* Nathan Schneider, "Admins, Mods, and Benevolent Dictators for Life: The Implicit Feudalism of Online Communities," New Media & Society (2021) <https://mediarxiv.org/sf432/>

* * Nathan Schneider, Primavera De Filippi, Seth Frey, Joshua Z. Tan, and Amy X. Zhang, "Modular Politics: Toward a Governance Layer for Online Communities," Proceedings of the ACM on Human-Computer Interaction 5, no. 1 (2020) <https://dl.acm.org/doi/10.1145/3449090>

***Nathan Schneider** is an assistant professor of media studies at the University of Colorado Boulder, where he leads the Media Enterprise Design Lab. He is the author of Everything for Everyone: The Radical Tradition That Is Shaping the Next Economy.*

***Luke Miller** studies computer science and Chinese at the University of Notre Dame, and has been working on the Agreement Engine at the Metagovernance Project.*

Modpol is openly maintained here:

<https://gitlab.com/medlabboulder/modpol>

Power in groups, not in roles —

rather than assigning particular powers to particular users, Modpol assigns powers to groups, called "orgs."

Assume consent, not autocracy —

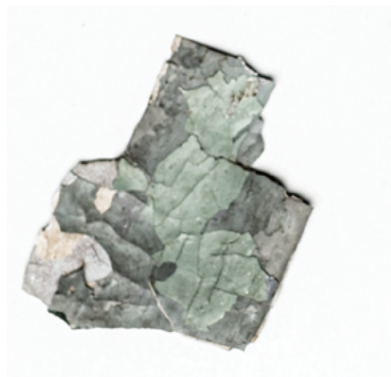
the default decision-making process for orgs is the consent of all members.

Nesting and inheritance —

if new orgs are created within the organization, these orgs inherit rules from the larger orgs, as children inherit traits from their parents.

Modpol explores the features and bugs of various ways of organizing and making decisions in online spaces. While Minetest is an engine for manipulating blocks in virtual worlds, Modpol's implications extend beyond the self-management of gaming communities. What might it mean to bring such tools into real-world spaces?





Who governs the logic of a public space?

Techniques, not technologies

Nothing seems more commonsensical than the notion that “technology is remaking our world.” This guide too asks how digital technologies are rerouting the possibilities for public spaces. But too often when we think about technology we focus on the technical objects — the cars, computers, and smartphones we use. We grant the objects a kind of inevitability and autonomy, saying technology “will do this” or “lead to that.” Technology leads, and culture follows. The assumption is often called technological determinism. And there are certainly ways technologies exceed our capacities to predict what will come from them. Famously, for instance, no mid-20th-century science fiction author depicted social media, despite anticipating the miniaturization and ubiquity of computing.

Focused on the objects, sci-fi missed the actions. They missed what some German philosophers call cultural techniques.* A technique is simply a traditional way of carrying out an action in the world. It’s a way of doing something, with focus on the outcome of the action. We use techniques for cooking, for commuting, and for communicating. Most of our techniques involve technologies,

like pots and pans for cooking, cars and shoes or commuting, or letters and phones for communicating. We cook, move, and communicate using technology. But we also have to learn how. We have to learn the social protocols for a phone call, the ways to cut and heat food, and how to walk in shoes — which sounds silly until you look at a runway and realize all forms of walking are socio-technical. Techniques vary with the instruments we use, and the outcomes we want to achieve. We learn them over time from others, and introduce variations.

If we put the focus on techniques rather than technologies, we can better frame how digital technologies might shape public spaces. It’s not that digital technologies are remaking public space; it’s that new techniques for generating public spaces are emerging. These techniques depend as much on the social production of desire as they do on technological affordances.

* Bernhard Siegert, *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real* (2015)
<https://www.fordhampress.com/9780823263769/cultural-techniques/>



How do we
imagine
techniques for
making spaces
more public?

How do we create
dialogue between
permanent
structures
and ephemeral
happenings?



Working in public

Working in public is a technique for collaboration. Many of us are used to presenting polished material to the world — essays that are finished, artworks that are complete, buildings that are ready to move into, meals that are ready to eat. In the process of making those things, we might solicit feedback from the people we're interested in reaching, through informal conversations or formal research. But we're not used to releasing our incomplete, in-process, not-yet polished work to a wider public. To work in public is to embrace that incompleteness in the hope that openness and transparency can surface valuable contributions from individuals not directly involved in projects that seek to benefit the public.

Digital platforms have made it easier than ever to share and conduct in-process work with the public. For instance, scientists and lab researchers have embraced the use of open laboratory notebooks that record the results of their research in real time and are available to anyone online.* Open laboratory notebooks encourage the development of trust not only between researchers themselves, but also with a wider public. Part of the research for this guide was also solicited in public, with an [open Are.na channel](#) where anyone could contribute material or use the material for

their own projects. As of November 2021, the channel had collected 250 pieces of research, 53 followers, and 13 active contributors — not insignificant for a cozyweb space.

Working in public is not just about opening your process to input on digital platforms, however. As important are the social protocols for how and why others should participate. To make a process public without knowing why or structuring how is a mistake. Some of the most important groups working in public — open-source communities — have struggled with this. As Nadia Eghbal has argued, many open-source communities are exhausted by the process of working in public.** This is because there are costs to it. It takes time to look over the work of contributors and see whether they're relevant. This takes time away from being able to do deep work. Working in public takes work. It has to be designed with an eye to why, how, and when it's appropriate.

* Matthieu Schapira and Rachel J. Harding, "Open laboratory notebooks: good for science, good for society, good for scientists" (2019) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6694453/>

** Nadia Eghbal, *Working in Public: The Making and Maintenance of Open Source Software* (2020) <https://press.stripe.com/working-in-public>

Deep-Needle



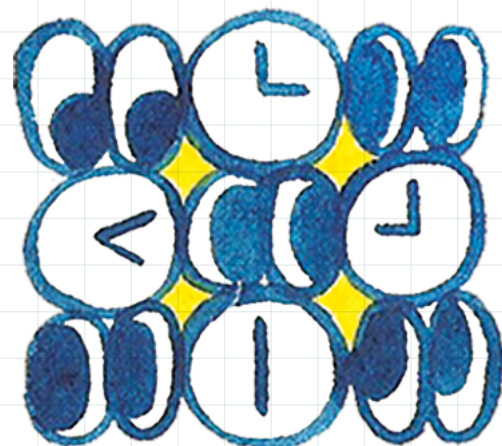
Terms That Serve Us was generated through an experimental, collective research process facilitated by virtual care lab as a means to offer inversions, transformation, rejections, and challenges to typical “terms of service” agreements that are often designed to restrict users’ agency on digital platforms.

Embracing the ethos of working in public, virtual care lab initiated a free, public series of discussions, gatherings, and online portals — creating an open cohort of co-conspirators to develop a set of living, collaborative Terms that capture an evolving constellation of community intentions and understandings, rather than a fixed set of rules. The Terms capture critical reflections around common

words like *community, contributor, study, gardening, accessibility, user, listening, and care*, through which virtual care lab ultimately defined their practice as a community, and invite people to actively consider how they interpret and perform this set of values.

virtual care lab intends these Terms to be generative prompts for collective reflection, to serve as provocations towards future collectively defined terms of service, and to be a resource for other organizations and spaces. The Terms celebrate fluidity and friction, and recognize expansive modes of access rather than retreating to defensive legal structures, reflecting an essential trust in, and respect for, other beings.

Terms That Serve Us
virtual care lab



Deep-sea
resident
micro-

TERMS OF SERVICE THAT SERVE US

▼ TOWN HALL

- # 📌 bulletin-board
- # 💬 suggestions-box
- # 🌱 sustaining-ourselves
- # 📱 emoji-requests
- # 📝 lab-notes
- # 🎧 Sound Stage
- # 🔊 LAB HOUR 🎧

▼ DISCUSSIONS

- # 🗨️ idea-exchange
- # 📖 book-club
- # 🎬 film-club
- # 📝 poetry-and-prose
- # 🌍 diaspora
- # 🗣️ tech-talk
- # 🌱 gardening
- # 🧘 body-work
- # 🐾 pet-cam
- # 🎮 games
- # 💖 feelings
- # 🎲 random
- # 🔊 LOUNGE 🎧

"Terms of Service": What are the "terms" that serve us? <<<"Terms of Serve-Us"?!?!?!>>>

- **study:** (Ben's proposal) - see "The Undercommons"

How can we invert or subvert or redefine other institutionalized terms....? e.g. "research" - what forms of media or creation or imagination count as "research"

- **community:** this term often feels co-opted as an advertising/marketing term by major platforms - how do we define it in a positive & specific way?

- **collaboration:** while the idea of "doing with others" is often valorized, we may encounter a lot of difficulty in actually cooperating (given imperatives to compete and assert individuality); how do we want to "do together" in virtual care lab?

- **care:** as an active practice of listening & engagement and....??? what does this mean to individuals vs. collectives

- **virtual:** as shorthand, we might say "virtual" to indicate "online", yet we exist in varying degrees of intimacy regardless of how we encounter one another; what might "virtual" mean beyond "not co-present"? << 'hybrid' is another term thrown around with digital worlds and we have tripped over defining this a few times so far. also useful to think of words that relate to our specific context in digital/hybrid space

access / accessibility: ??? challenges to access beyond what is considered "accessibility"

- **user:** Not sure what we would prefer, but earlier reflections, seems this language feels problematic for some.

Grounding collective acknowledgements + intentions:

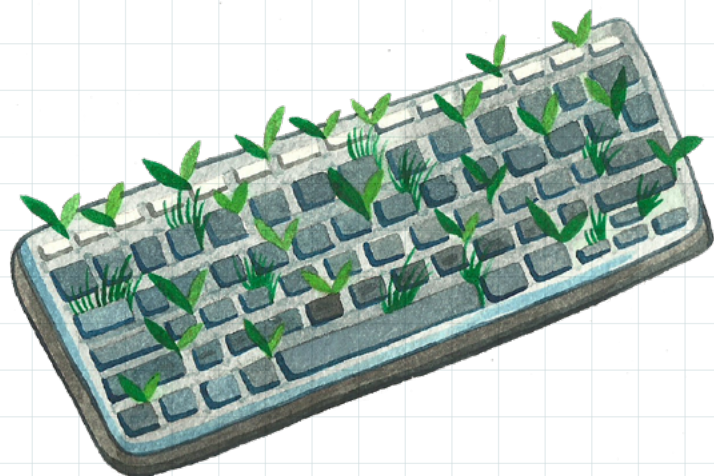
- Transparency builds trust
- Let's take the time we need
- "move at the speed of trust"
- This is an imperfect, experimental space we will iterate on
- We have a microcosm for enacting radical care-based economy,
- under the realities of oppressive capitalist systems
- Folks come from upbringings with different experiences,
- ethics, traumas around money. We can do our best to hold all that
- Vulnerability is collective power
- Thinking beyond transactional toward reciprocity, needs-based, etc
- Calling in folks to consider how they like / need to value their work

you found me!

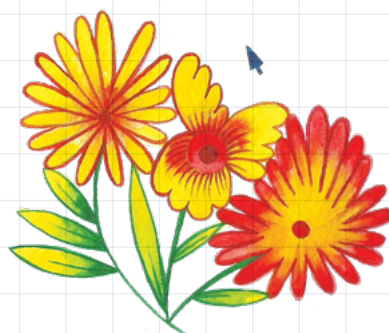
so glad I found you

Terms are available for
exploration here:

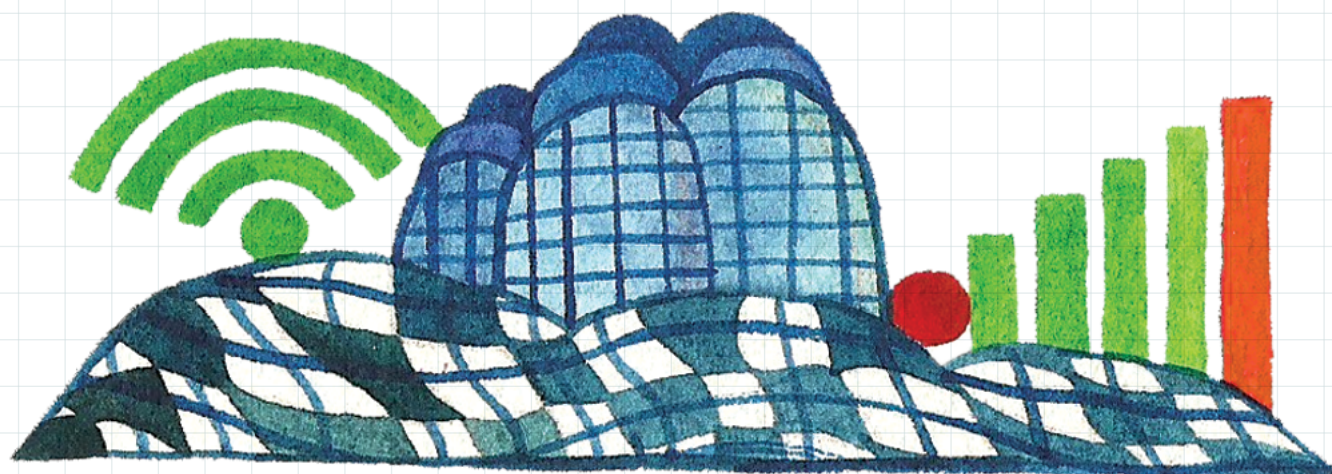
<https://virtualcarelab.com/terms>



Deep Tech-needent



virtual care lab in exercise in mutual governance, co-founded by Alice Yuan Zhang and Sara Suárez, operating in fluid collaboration with Lea Rose Sebastianis and other community members, and organized in partnership with NAVEL, a non-profit cultural organization and community space in Los Angeles. Their projects have included many unconventional virtual gatherings, focused discussions, collective performances, creative activities, and collaborative online spaces, and are all available to the public.



– activity, or the process
that governs





What comes first

Public spaces are animated by the people who come to them. But how are people perceived? As participants, audiences, stakeholders, users of a space? Each term frames the roles, capabilities, and responsibilities of those who animates space differently. The last term, user, comes from software but increasingly shapes a range of domains — from users of government services, to urban spaces, and even to ecological services. What does it mean to frame public space through a user? There is an obvious instrumental risk: users are passive and maintain strictly transactional relationships. In other words users come and go, but don't form mutual relations with the places they visit. Online social media platforms often display these kinds of transactional dynamics: platforms rise and fall in volatile ways that would be destructive to the very idea of public space.

On the other hand, the notion of the user opens up other possibilities for thinking about what animates a space. As the design theorist Benjamin Bratton has pointed out, a user doesn't have to be limited to a human.* It could also be a plant, an animal, an algorithm, or a smartphone. Because digital networks render and transmit signals homogeneously, anything can participate. Any kind of sensor has the potential to be put in relation in a public space. The question then becomes: how are those relations organized? How and why might people be brought into relation with flora and fauna and algorithmic models? To do what? Projects like Zoöps in the Netherlands — speculative economic cooperatives

between humans and non-humans — are one kind of possibility.** The digitization of public spaces could animate new relations of natural, technological, and human users.

But the term user also encourages a new way to think about individuals. It could move us beyond the idea that people have single, fixed identities. Don't identities fluctuate based on context? Who you are changes as you engage with different parts of your past, and different relations to your present. Users might help us think about people's identities through a more polyphonic lens. The Serpentine Gallery in London, for instance, has described how adopting the category of user could allow art institutions to move beyond a category of the "general public" and instead address multiple kinds of user groups — from communities to diverse interest groups to artists to funders.*** How various groups inhabit a public space could be diversified to accommodate different functions, different relations to people and place. What would it mean to toggle your user profile in a public space, to change your settings? What would that risk?

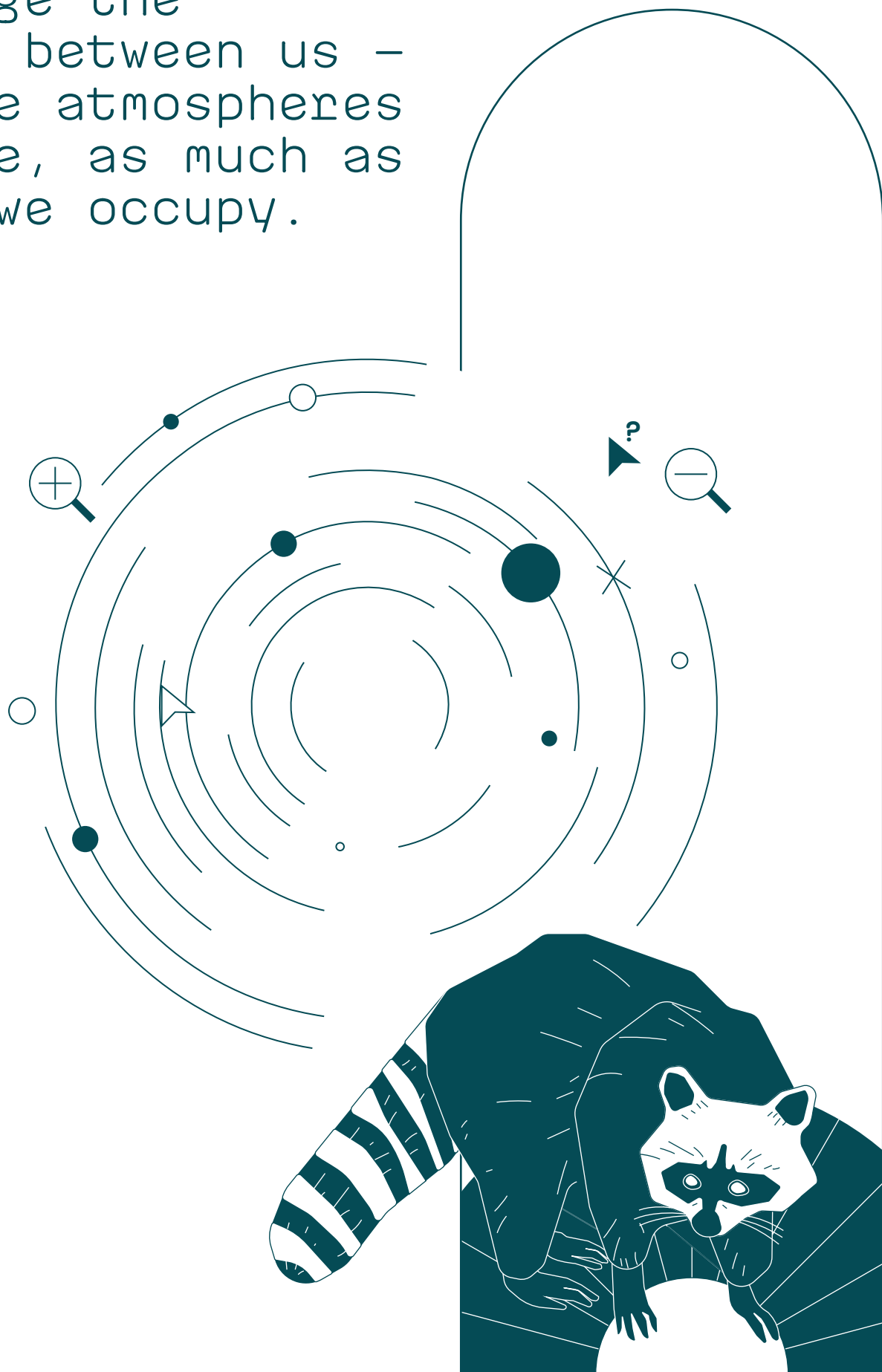
* Benjamin Bratton, "Interview: The Stack and the Post-Human User," (2015) <https://tuinvanmachines.hetnieuweinstituut.nl/en/stack-and-posthuman-user-interview-benjamin-bratton>

** Het Nieuwe Instituut, "Zoöp Research Project," (2018) <https://zoop.hetnieuweinstituut.nl/>

*** Serpentine R&D Platform and Rival Strategy, *Future Art Ecosystems Vol. 2: Art x Metaverse* (2021) <https://futureartecosystems.org/>

PUBLIC AND/ AS USERS

Public spaces
rearrange the
borders between us –
they are atmospheres
we share, as much as
spaces we occupy.



Unnique

Mitchell Akiyama

Mitchell Akiyama is a Toronto-based scholar, composer, and artist. His eclectic body of work includes writings about sound, metaphors, animals, and media technologies; scores for film and dance; and objects and installations that trouble received ideas about history, perception, and sensory experience. He holds a PhD in communications from McGill University and an MFA from Concordia University and is Assistant Professor of Visual Studies in the Daniels Faculty of Architecture, Landscape, and Design at the University of Toronto.

Deep mono-resistant

We often imagine the spaces of online communities as analogous to physical world spaces, their stuff and activities: message boards, chatrooms, virtual meetings, marketplaces. The metaphors are helpful but clearly limited. Digital connectivity affords us different sets of functions that produce altogether different experiences. They're much more, much weirder than their skeuomorphic nomenclatures lead on. **What happens when we invert the frame, modelling real world interactions after our experiences in online publics?** Mitchell Akiyama posed the provocation in a recent Heichi Magazine* article: "I wonder if any 'real' spaces will feel like substitutes for the virtual environments." In contrast to the usual drive to simulate the physical, Akiyama is interested in exploring the possible publics and spaces that are digital by nature, that cannot be transferred offline nor practiced "in-person."

unnique

CLAIM

ABOUT

CONTACT



Email:

Just as our interfaces conflate the tasks of computing with the stuff of offices — *folders for storage and trash cans for deletion* — the recent explosion of speculation in Non-Fungible Tokens (NFTs) reflects a similar drive to simulate aspects of the offline world. In this case, it is the attribute of scarcity, the aura of something rare, the value we ascribe to such things, and the legal dimensions of ownership — properties of economies that already exist — that are being transferred online.

As an experiment to challenge those assumptions about digital property, Mitchell Akiyama is launching Unnique,** a project he started during his Digital and/ as Public Space residency. Unnique draws attention to the glaring paradox of NFTs, that they certify one's 'ownership' of an infinitely reproducible virtual object that might be equally available, in the same form, to anyone with an Internet connection.



Each image claimed contains one altered pixel. Every new claim generates another pixel alteration with a different RGB value. Once all possible RGB values have been exhausted, one adjacent pixel is transformed. Because there are 16,777,216 possible colours in the RGB system, this image, which is 1767 x 1414 pixels, will yield 41,918,511,710,208 possible iterations.

Daeps mōno-Resident

Exploring the possibilities of other kinds of publics and economies, Ununique endeavours to distribute a singular, digital artwork — a unique version of a JPG reproduction of Fra Angelico's The Annunciation (c. 1440–45) — to every person on the planet. Every image appears to be identical, but each file contains a unique pixel variation that distinguishes it from every subsequent image generated. When someone claims an image, their unique file is generated and emailed to them. The claimant receives an encrypted zip file and a key to open the document. If they choose to share the unencrypted file, they will have effectively made a copy of their “unique” asset, which could then be reproduced and circulated without limit. By creating an edition large enough to provide a singular digital object for the entire population of the planet, Akiyama explores abundance as an alternative model for understanding how digital objects circulate and accumulate value — through a project that could never feasibly be executed IRL.

According to the Ununique website, “This project is our effort to consider what it means now, at this moment, for ownership, title, and scarcity to enter into the digital economy. What are new and other ways of creating value that prompt collaboration, sharing, and debate, rather than speculation?”

The experiments currently playing out through applications of blockchain technology have many implications for the futures of publics and property. One popular platform backed by the ethereum blockchain is Decentraland. It

allows users to buy and sell land, virtual real estate, 90,601 parcels of land in all, across a virtual copy of our planet. However futile or unimaginative the idea may seem, parcels of land are going for as much as USD \$100,000 on the platform.

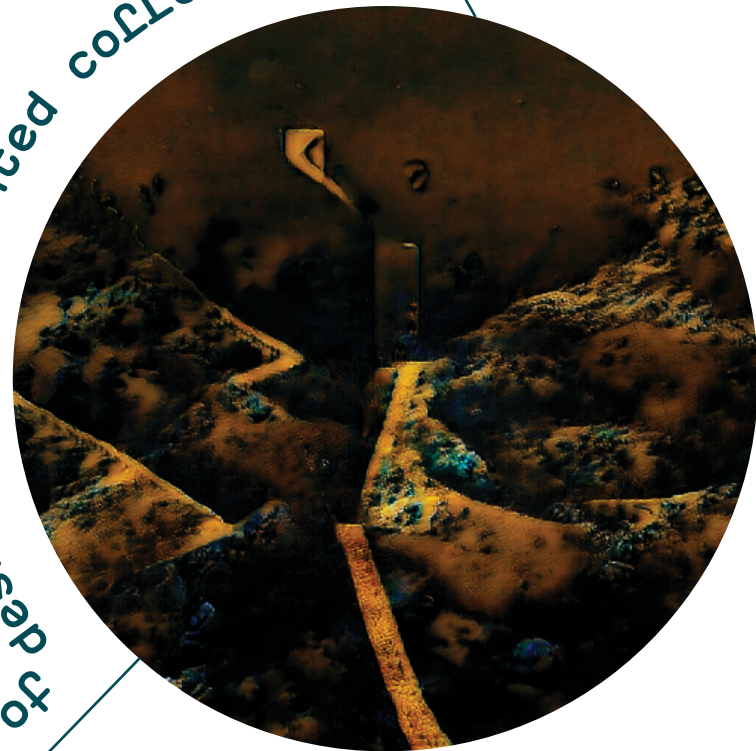
How might we invert the idea, directing similar tools and techniques, toward physical places? As a public ledger, blockchain technology enables complex new models of transaction, ownership, and governance. What becomes possible for physical world public spaces?

* Mitchell Akiyama, “This Place Must be the Place: On Living in the Internet,” (2021) <http://www.heichimagazine.org/en/articles/563/this-place-must-be-the-place-on-living-in-the-internet>

** Mitchell Akiyama, “Ununique,” (2021) <https://ununique.org>

Decentraland

**Can we conceive of
a new kind of public
space – one that
is collectively
governed,
maintained,
programmed, and
owned by its users?**



Public space is the practice of designing augmented collective realities.

Rituals serve to reinforce codes of engagement in community spaces.

For Raad Seraj, rituals are the fundamental units of culture. They encode relationships with ourselves and those around us. Ubiquitous in online and offline interactions, rituals serve to reinforce codes of engagement in community spaces.

Acknowledging our present moment as one where everything is inverted ("We used to go online to escape. But now we go outside to escape"), Seraj calls for the deliberate design of new rituals, counterweights to the force and heft of our current conditions. The need for a new ritualism is oriented in relation to two intersecting issues: unsafe online spaces and the impending psychological outfalls of the pandemic. They seem likely to compound in dangerous ways as many are forced to confront the isolation and grief imposed by the pandemic in (online) spaces that are powered by algorithms, driven by ideology, and funded by advertising. Online and offline, the feeling of being tracked surfaces as a freedom-limiting factor. To counter that chilling effect, Seraj's conversation with Hima Batavia urges, "we need new rituals because we need new permissions and new invitations."

If rituals are gestural manifestations of how we heal, relate, grow, believe, and celebrate, how can we design them to meet the pressures of such a complex and precarious social moment? The answer, for Seraj, lies in "re-appropriating online spaces as spaces for inspiration, healing, and connection," finding ways to utilize the features uniquely afforded by our digital tools to recapture our attention.

Raad Seraj is a Bangladeshi-Canadian technologist, cultural producer, activist, and advocate for psychedelic medicines. Raad's work incorporates science, art, and technology to interrogate assumptions embedded in systems and to create new ways to embody possibilities. His expertise draws from a career in biotechnology, cleantech, and economic development, as well as work in media and entertainment. Raad is the co-founder of Anda Residency, an NFP that hosts artist residencies in transitional spaces (like a house slated for demolition). By day, Raad works with Benevity, an enterprise SAAS company and global leader in workplace giving and corporate philanthropy.

Deep
Mind-Resident

Rituals
are the
fundamental
units of culture.

They encode
relationships with
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Deeply
micro-needled

Ritualistic Design

Raad Seraj



If rituals are gestural
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social moment?

Reality is always augmented

The philosopher Brian Massumi long ago highlighted the poverty of the idea that virtual realities are only possible with immersive 3D worlds, or augmented realities with digital overlays of information.* The exclusively technological focus obscures important capacities of humans to virtualize and augment their worlds in other ways. When we read, for instance, we virtualize realities. It's not just that we imagine what the words we read depict, visually. Visual images are not what make a reality virtual. It's that our bodies actually feel the words they read directly. Words like "run" trigger mirror neurons that ready the body for actual running. They virtually activate our bodies for the possibility of running. When we read, we're not just imagining other worlds — we're virtually preparing for them.

These kinds of virtual cues are everywhere in public spaces. They are forces really felt, but not actually perceived. Take the 1960s walking artworks of Richard Long, who would walk back and forth along a path in a field until a path was visible in the flattened grass.** We see such paths in many public spaces, tracing more convenient routes to desired locations. Architects call them desire lines, as they represent the desire of bodies to move through spaces in ways not enabled by the designers. A desire line marks the virtual presence of shared bodily desires

in a public space — not actually there, but felt directly. Of course we actually see the literal paths, but we don't actually see the desires they mark the trace of; we only feel them. We feel a public desire directly in our bodies. In Long's case, however, the desire lines didn't lead anywhere; they didn't culminate in a purpose. They were suspended in the middle of a field to and from nothing. They marked, through their suspension and refusal to culminate, a pure potential to alter public spaces through our virtual traces.

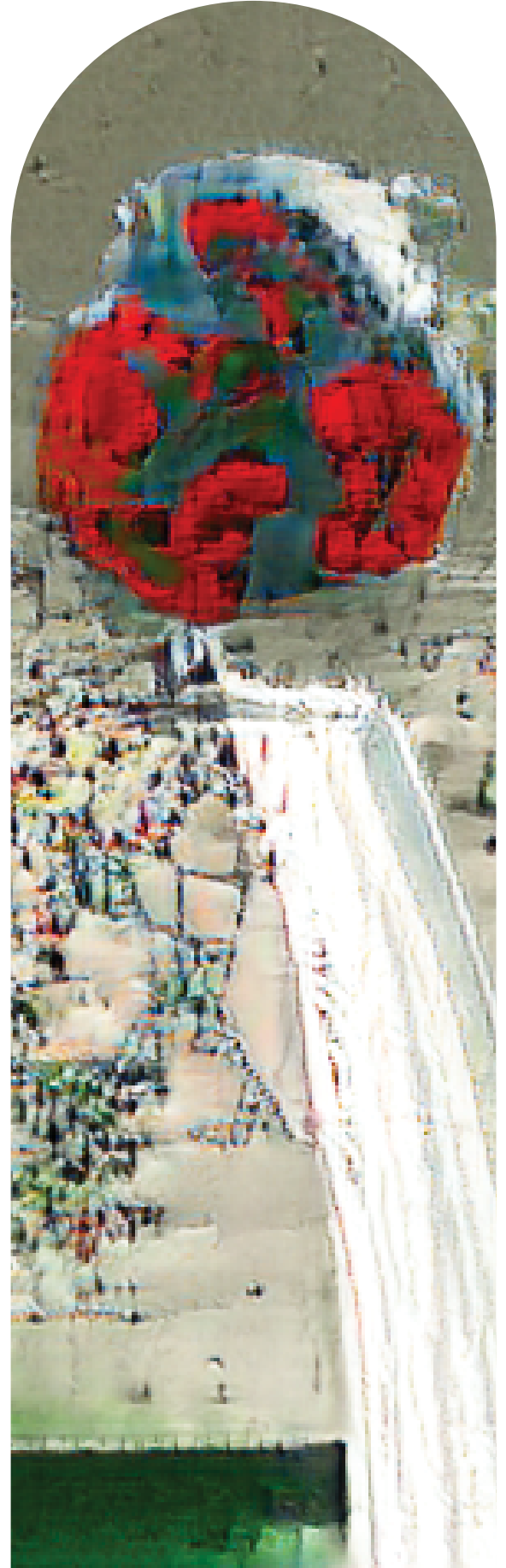
Public spaces are virtual and augmented realities. They are filled with marks of inhabitation and habit, desire and unfinished stories. The challenge in digital public spaces is that such traces are not always easy to leave or feel. When, for instance, you visit a website, rarely does anything about your visit change the site. Your presence doesn't leave a mark, the way walking on grass does. A website registers an impression of your visit, but there's nothing inherently virtual about that. How do we make our desires felt in digital spaces?

* Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (2021/2001) <https://www.dukeupress.edu/parables-for-the-virtual-twentieth-anniversary-edition>

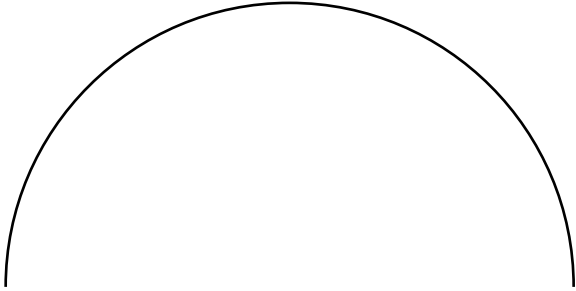
** Richard Long, "A Line Made by Walking," (1967) <https://www.tate.org.uk/art/artworks/long-a-line-made-by-walking-p07149>

Why are spatial metaphors used to describe digital networks?

Highways, oceans, mines, public squares, cyberspace: each is a spatial description of a digital reality. If we stretch the metaphor, then how does digital space express the losses of time — as accidents of bit rot, generation loss, and abandonware? What resistances do bodies face moving in digital space — lag times, load times, and site permissions? What senses orient the body — 1920x1080 pixels of light, the faint hum of a fan, the smell of plastics and metals? How does movement occur — scrolling, swiping, hyperlinking? If quintillions of bits of data are produced daily, what maps this relentless flux? What is this space without the possibility of ever being mapped?

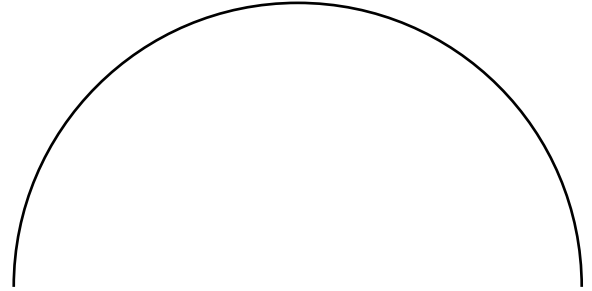


PLACES



Digital technologies are part of the ways people ceaselessly produce space and place. Often, to make sense of what happens through them, we adopt spatial metaphors. We say that we're *going* online. But do we really go anywhere? Or do we stay where we are and let something enter into relation with us?

Might it be better to think that it's actually digital networks that enter us, wherever we are, rather than us entering them? That there are not, and have never been, two separate spaces — the offline and the online? That there have only ever been mixtures of the two, calibrations and dosages? Framed this way, we can better account for how public spaces are transformed by digital technologies. For one, digital networks are ubiquitous. The proliferation of smartphones means that digital networks can trigger changes in behaviour anywhere and at any time. Someone in, say, Australia can trigger an event in a public space in Toronto in real time. As the geographer Scott McQuire has pointed out, this used to be a power accessible only to militaries and multinational corporations — the power to assemble and coordinate bodies instantly



across vast distances.* So one thing that digital networks have done to public spaces is to intensify the capacity of distant relations to affect local spaces.

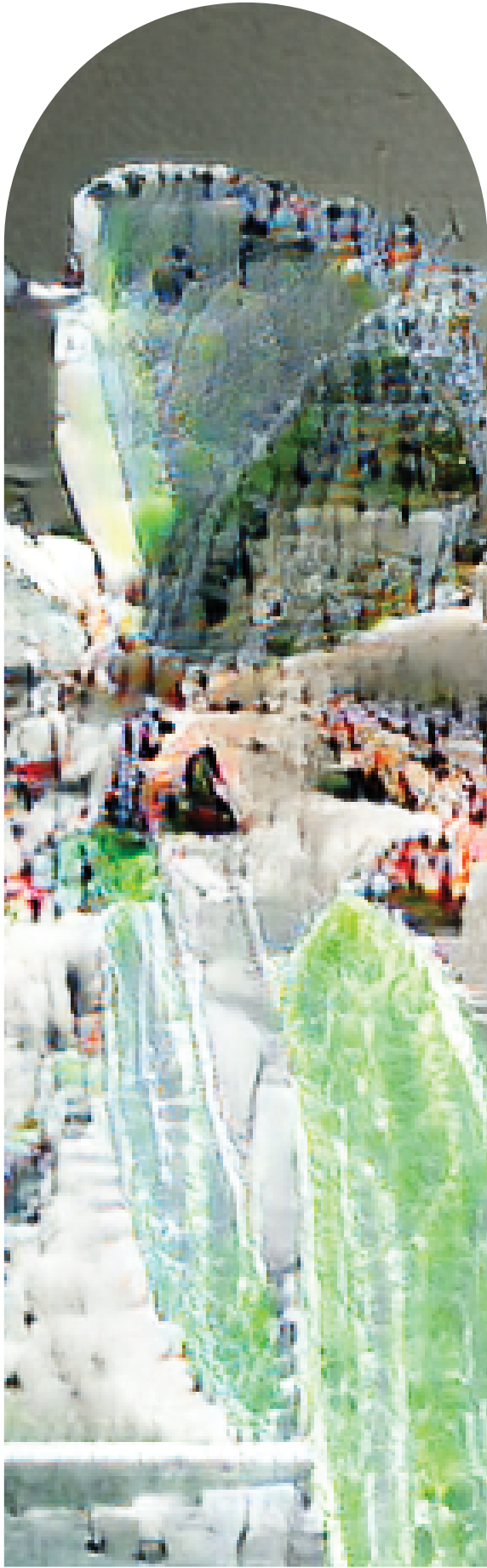
Another implication to refusing digital dualism, as the separation of on and offline spaces is called, by social media theorist Nathan Jurgenson,** is to refuse a simple exit to the digital. Just as there are no purely offline spaces, there are no purely online spaces either. The publicness that is created in online spaces is still a relation between actual offline bodies. What's actually happening in an encounter in a virtual world? Two offline bodies are using flickers of light travelling across wires of sand and metal to make each other's bodies feel and perceive things. It's happening in real life.

* Scott McQuire, *Geomedia: Networked Cities and the Future of Public Space* (2016)

<https://www.wiley.com/en-us/Geomedia+%3A+Networked+Cities+and+the+Future+of+Public+Space-p-9780745660769>

** Nathan Jurgenson, *The Social Photo: On Photography and Social Media* (2019) <https://www.versobooks.com/books/2947-the-social-photo>





There is always only IRL – transformed, layered, and intensified by digital techniques. _____

Modulating space

The default way of representing space is absolute: a thing is simply where a thing is. It has a fixed location. Its location doesn't depend on its relation to other things. This aligns with our intuitive experiences. My cup (an object) is on the table (a location), and unless someone or something moves it, it will still be there later.

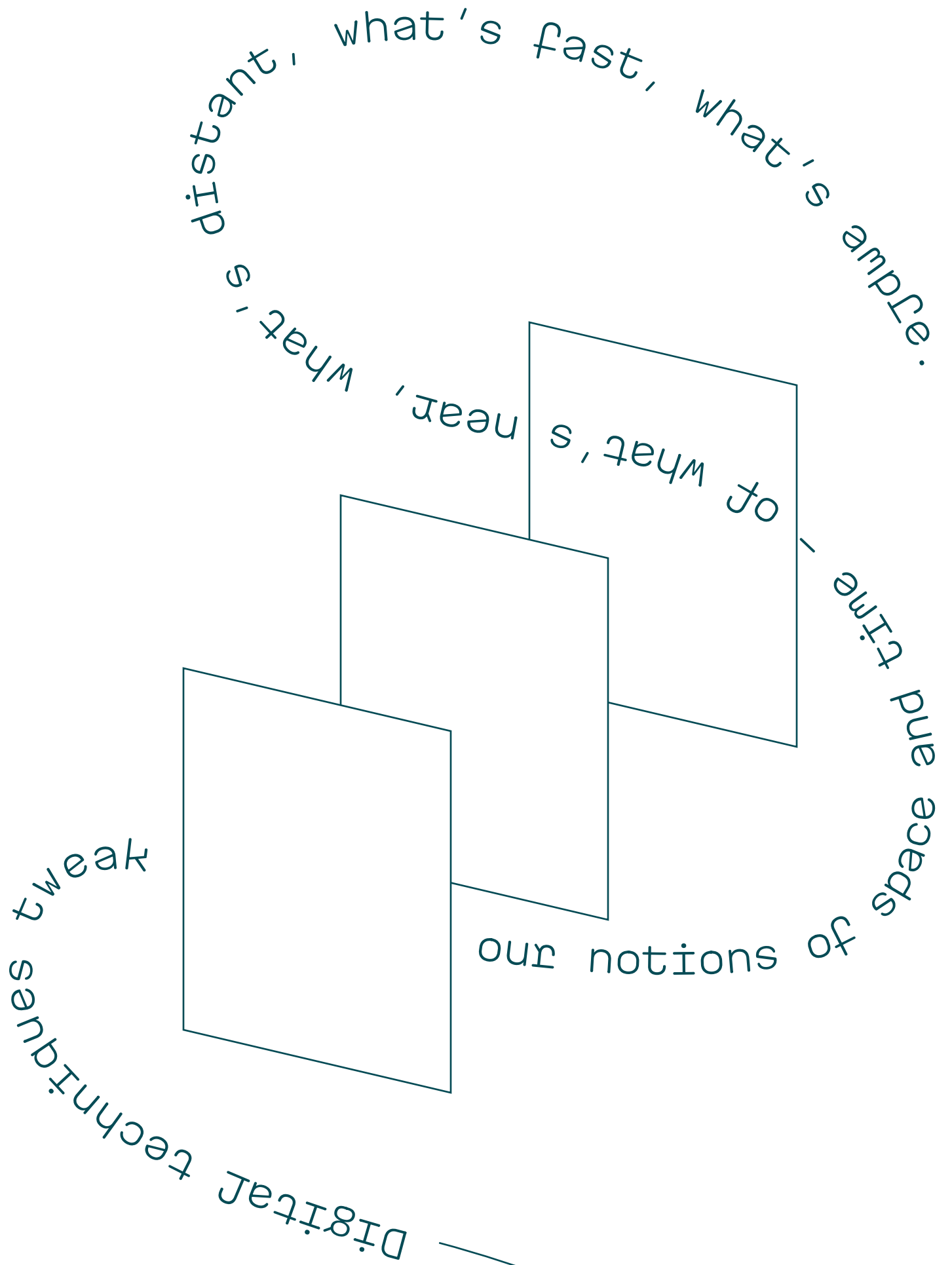
But there are other ways of representing space. The representation of a cup might depend on how fast I'm moving away from or towards it, or of how tired or animated I am. This brings to light the relativity of relations. And this too can align with our intuitive experiences. Most car accidents, for instance, occur the closer one approaches home. The intensity of space varies with movement through it — the possibility of an accident increases in relation to the proximity of one's home, which triggers a relaxation of attention.

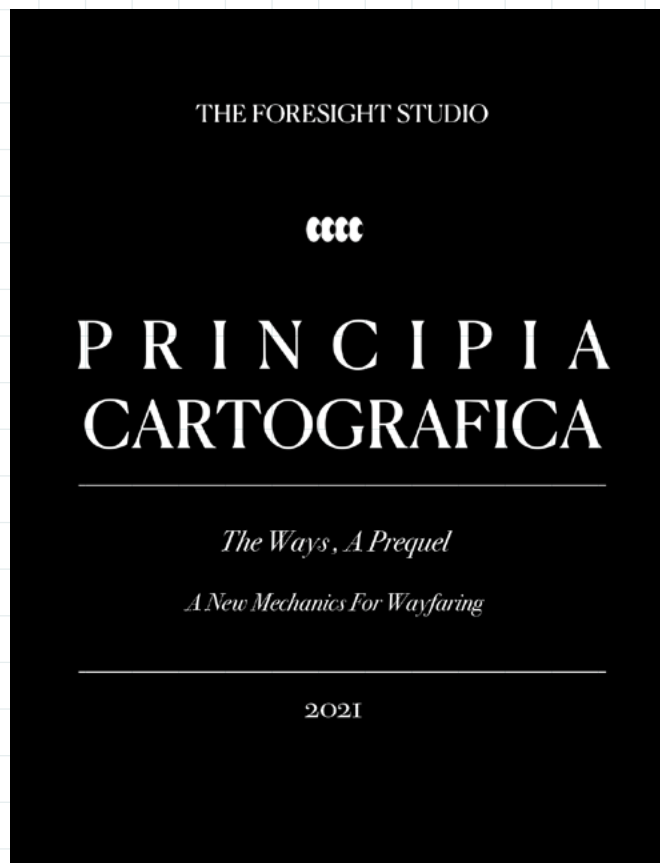
Digital technologies make it easier to experiment with those relations. In immersive 3D environments, for instance, space doesn't

have to be absolute. VR already incorporates spatial tricks such as making the body feel like it is walking in an infinitely straight line when it's actually walking in a circle. But spaces don't always have to be aimed at skeuomorphism, at reproducing our expectations of real world things. We can add additional dimensions, changing the physics of interactions to be, say, non-Euclidean, as the video game *Manifold Garden* does.* We can layer new relations that digital manipulation makes possible.

This has ramifications for thinking about digital public spaces. Take social media networks. How are bodies distributed in that space? They are equidistant. A connection halfway across the world appears alongside, and in the same form as, a connection from your neighbourhood. The mapping of relations is a choice. How proximate, how intense, how related they become is open to design.

* William Chyr Studio, *Manifold Garden* (2019)
<https://manifold.garden/>





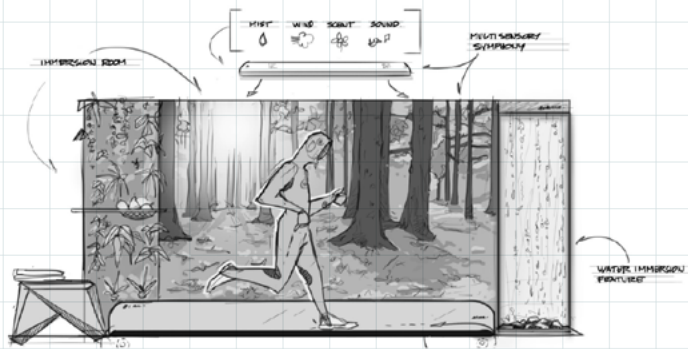
maps
no-incident

Principia Cartografica catalogues and reflects on The Foresight Studio's more than fifteen years of designing digitally enabled experiences. In the process, they developed a fluid grammar of shorthand graphic annotations, indicating the behind-the-scenes workings of networked intelligence in physical spaces. The annotated illustrations make visible a digital layer over physical space, showing how various devices talk to each other — sensing, exchanging data, providing feedback, and actuating events.

The Principia Cartografica situates this mapping practice within histories of human wayfinding, considering the limitations and affordances of various approaches. If maps, traditionally static and fixed, are as much about navigation as about the maintenance of power, how are the dynamics of power, ownership, and use differently negotiated in a read/write digital format?

Principia Cartografica
The Foresight Studio

The Foresight Studio looks to understand geographic space and imaginary boundaries in ways that are communal and local-social, working towards a “geo-spatial capacity building that is generative, cultural and inclusive” as much as it is informational. They suggest a set of design guidelines that holds as a core principle the notion that: everything (specifically including *time* and *behaviour*) is media; any distinction between digital and physical is fallacious. What results is a notational wellspring for the choreography of public space, drawing from navigational practices including the *hobo code*, a language of hieroglyphic etchings made by itinerant workers during the Great Depression; the utility location markings on sidewalks which indicate critical infrastructure below ground; Polynesian stick charts which aided navigation in relation to natural phenomena; and the studio's own practice of making “sortatypes,” diagramming digital possibilities onto analogue objects.

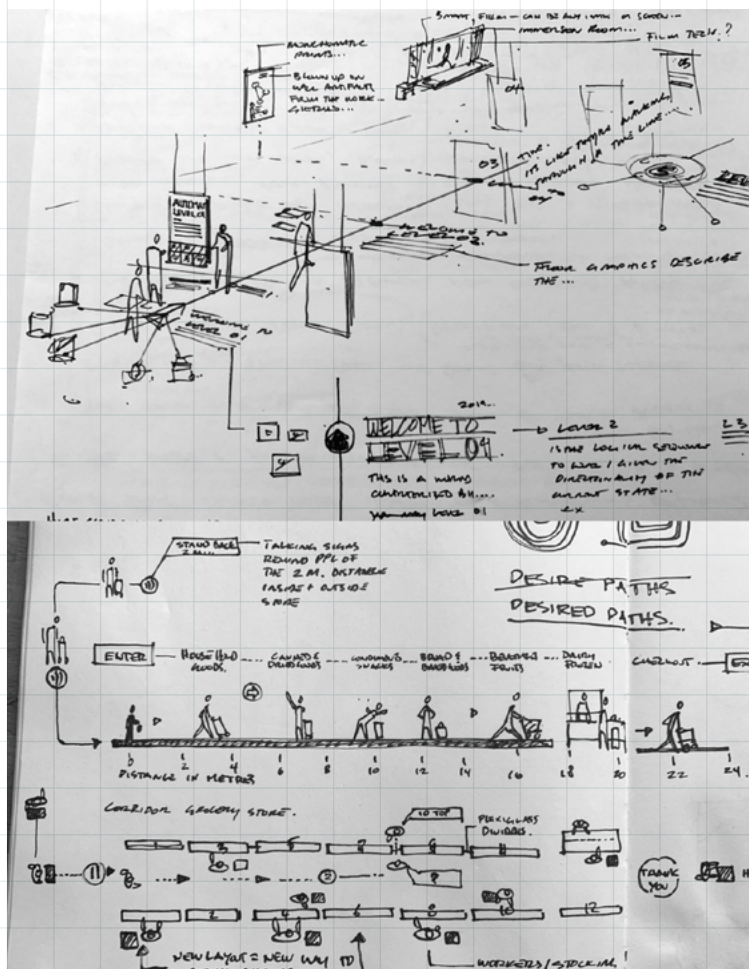


This image is a future oriented scenario for home appliances enriched with distributed intelligence (AI). The home's generational AI has detected indications of stress in the home's occupants, aided by signals from the personal AI companions. The system recommends some healthy activity using the home's immersion space to help the occupants reach a desired emotional state.

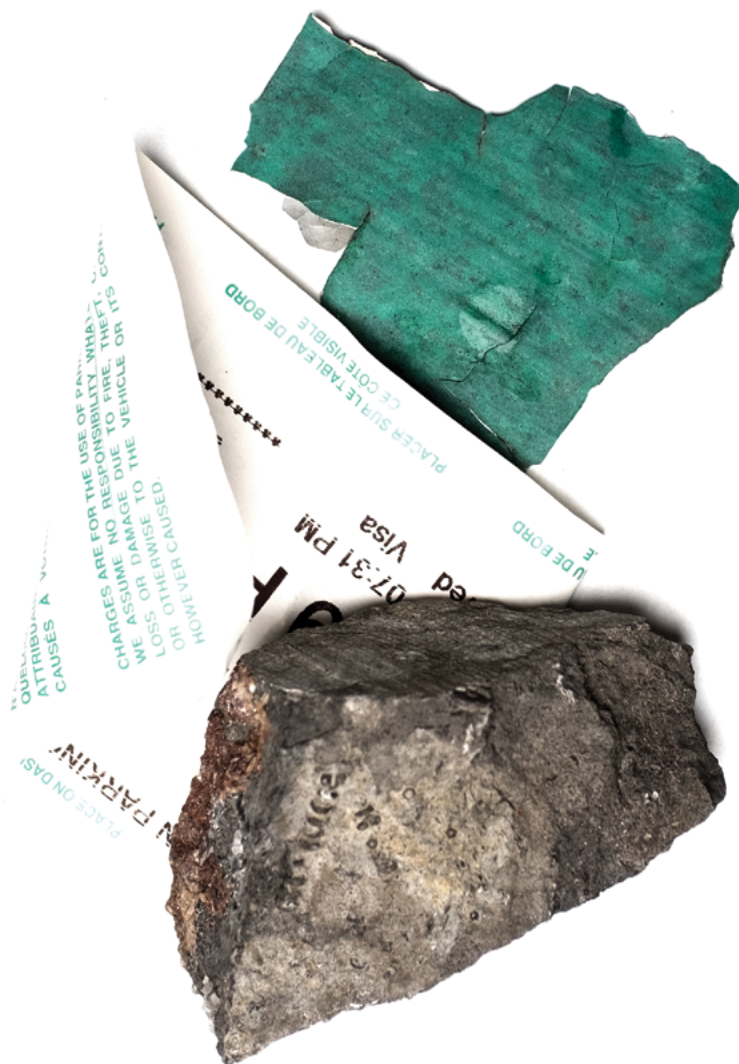
2021



The Foresight Studio (Sady Ducros and Richard Thomas) is a strategic foresight advisory group working to increase the quality and variety of strategic options available to clients. Sady Ducros works globally across industries in experience design futures and strategic foresight. Richard Thomas is a future-forward strategist driven by the balance of art and rigour. He's worked globally exploring frameworks for the future of artificial intelligence and human experience. Currently, The Foresight Studio is developing a real-time system enhancing situational awareness for disaster risk reduction.



Physical or digital,
public spaces
are layered like
geological strata,
with hidden signs and
unrealized uses.



Adaptive digital reuse

In architecture, adaptive reuse is about repurposing old sites to new functions. Factories get converted to lofts, industrial districts to cultural zones, shipping containers to ghost kitchens, or the underneath of expressways to public spaces — like The Bentway itself. Adaptive reuse is a way of creatively seizing and reforming the possibilities of an existing design. Out of the amorphous potential of an existing thing, it isolates and pulls out new possibilities. But adaptive reuse also has its less formal versions. Something like adaptive reuse is present wherever use is. That is, there are vernacular reuses in the use of any design. There will always be a margin of creativity, however slight, that contributes to the vibrancy of use.

Public space is subject to just such creative use. It maintains openings for something public to happen, and tries to increase their possibility. *Directions to Nowhere in Particular*, developed for this initiative and described elsewhere in this field guide, is just such a device. An urban game of chance, it aims to recondition the potential of urban spaces prior to any use whatsoever. That is, it doesn't try to repurpose urban space as much as open it up to becoming potentially anything. It tries to undo the instrumentality with which we tamp down the possibilities of space, in order to feel more directly — what else can this space, this site, do? It tries to change the perception of possible uses.

Digital technologies are no different. They too can be adaptively reused. Platforms can be seized for other purposes. Algorithmic models can be adapted to new ends. Hardware can serve new functions. The designer Mindy Seu, for instance, used Google spreadsheets for crowd-sourcing and gathering a collective archive of cyberfeminist works,* while other individuals repurposed spreadsheets as sites for collective parties during the pandemic. And the artists, programmers, and designers Brian Clifton, Sam Lavigne, and Francis Tseng repurposed predictive policing models, used mostly to target petty or violent crime, to anticipate the location of white-collar crimes in urban areas.** The resulting maps of “no go” white-collar crime zones located in financial districts brought to the fore the unequal perceptions of risk that shape public opinion. Mechanisms of existing designs can be repurposed to enable new possibilities. Public things can emerge from the creative reuses of digital techniques. They just need to be encouraged.

* Mindy Seu, “Cyberfeminism Index” (2020) <https://cyberfeminismindex.com/>

* Brian Clifton, Sam Lavigne and Francis Tseng, “White Collar Crime Risk Zones” (2017) <https://whitecollar.thenewinquiry.com/>



Digital Garden
Garry Ing &
Dawn Walker,
Hypha



Does the internet dream of physical spaces?

Does the internet dream of physical spaces? The question, older than the internet itself, evokes William Gibson's expression of cyberspace as a "consensual hallucination." In their investigation of digital public space, Toronto-rooted worker cooperative Hypha wonders what that hallucination looks like today. And how, through adaptive reuse and creative misuse of digital infrastructures, can we reshape our current imaginaries of the internet? Through a research and generation process that connects retro-futuristic histories to speculative possibilities, Hypha looks beyond the assumptions of exclusive, financially motivated content platforms to an equitable internet with "us users as stewards and maintainers of protocols."



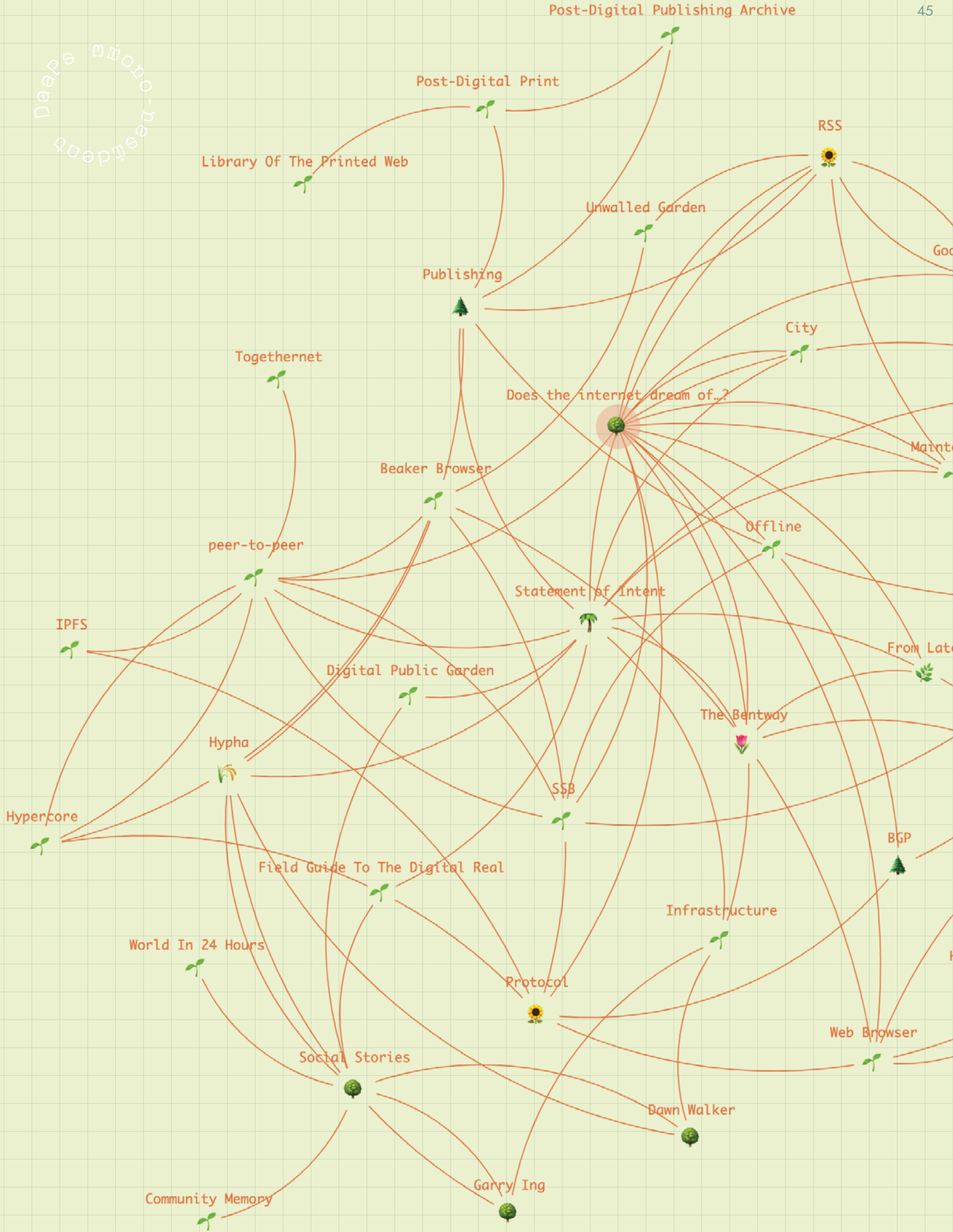
As a matter of working in public, Hypha nurtured a unique digital garden of their own, mapping the rhizomatic connections among research themes. They made the code available under a GNU General Public License for other researchers to chart their lines of flight.

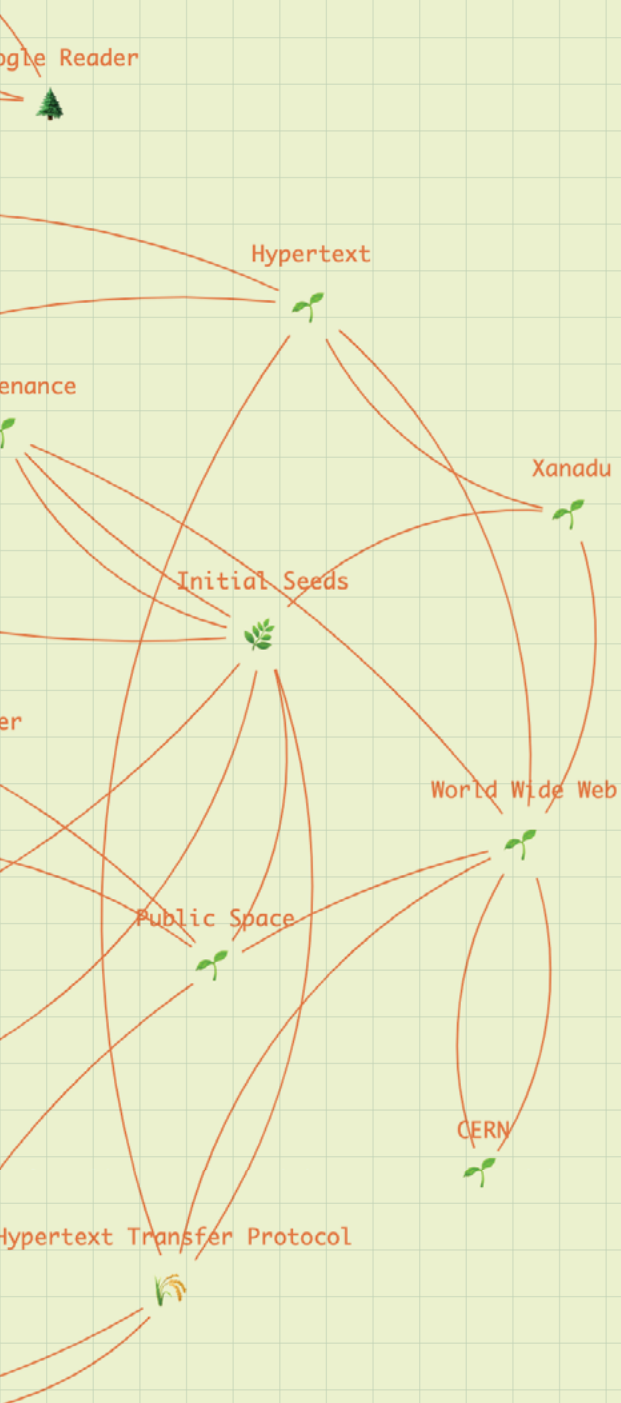
Hypha navigates their internet dreamscape in three speculative vignettes. Taking up technologies from our current online, the vignettes glimpse alternative experiences that might have been, or might yet be — a kind of imaginary forking. The technologies explored are “actively present in our day to day but at times living on in afterlives (RSS), or extended in scale and function (BGP), or transmuted beyond recognition (web sites as platforms).” As the title of one vignette indicates, working with these scenarios is an exercise in imagining what it would feel like to de-gentrify the internet. One gets some sense of both the freedom and responsibility that would come with an open, equitable network, governed by us *users*.



Deaps mōno-neident

Deep micro-needles





Explore the digital garden here:

<https://digitalgarden.hypha.coop/>



Garry Ing is a designer and researcher residing in Toronto. He is a sessional faculty at OCAD University teaching interactive media. He is a co-organizer of Our Networks, a conference on building distributed network infrastructures, and A-B-Z-TXT, an autonomous school for art, design, and computation in Toronto and Montréal.

Dawn Walker is a design researcher and PhD candidate at the Faculty of Information, University of Toronto. Her research focuses on the possibilities for social transformation through the design of alternative infrastructures. She is also a co-organizer of the Our Networks conference.

Daap's micro-needles



To publish
is to make
p u b l i c .

Directions to Nowhere

Directions to Nowhere in Particular is a game of chance that alters the ways you sense, make, and navigate public space, designed by From Later and Nomadic Labs as the creative platform for The Bentway's Digital and/as Public Space initiative. The web-based app invites anyone to go outside, pick a random prompt, and follow a set of instructions for interacting with the surrounding environment. Inspired equally by Fluxus event scores and internet challenges, the prompts, which instruct simple actions and ideas, are clear enough to execute while also vague enough to demand some interpretation on the part of the reader. More than anything, they're

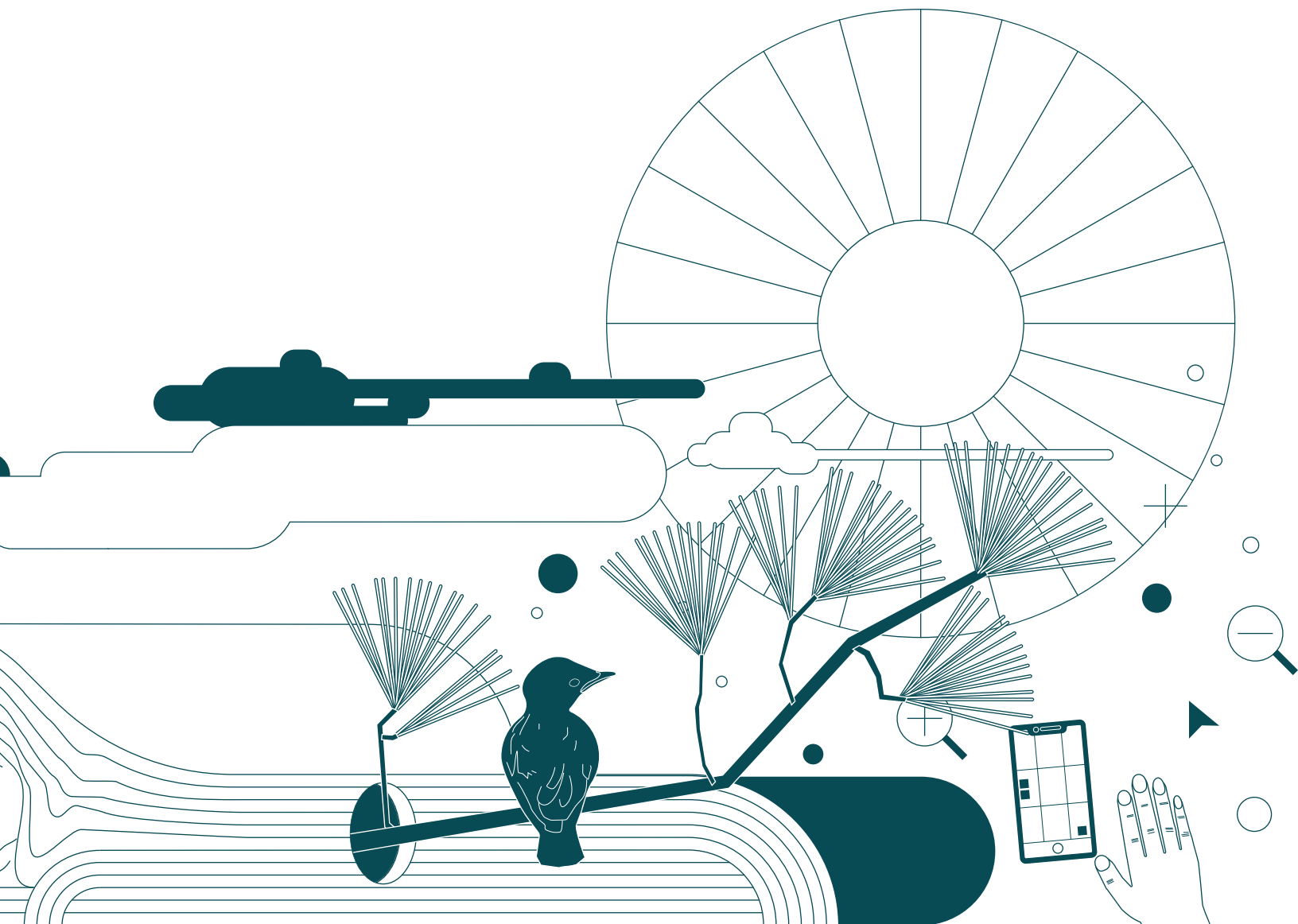
meant to stimulate new interactions, reorient our movements through space, and shift our attention so we notice things we otherwise wouldn't. Like drawing tarot cards or other chance operations, *Directions to Nowhere in Particular* compels us to create new narrative meaning, using random inputs as the catalysts.

In conceiving *Directions to Nowhere in Particular*, we asked what the canvas, palette, and paintbrush for creating art in digital public space might be. A few of the most common strategies were quickly slashed. Projects that mimic physical space in a virtual form lacked imagination; we don't want to visit an online



replica of an art gallery. High-tech immersive environments were expensive and infeasible, while high-end augmented reality projects created an unnecessary layer of mediation. Instead, we recognized the under-utilized digital affordances embedded in the boring everyday tech all around us and used them to generate new modes of creating. Let's wonder: if we attune ourselves closely to our ecologies, if we can also be more attentive to our digital affordances, what are people and publics capable of being and doing?

As part of the Digital and/as Public Space initiative, *Directions to Nowhere in Particular* explores how people and places relate through software. It proposes ways of playing that might test and transform our conceptions of a public — directing our (mis)use of everyday digital tools to produce new socio-poetic moments.



About the Field Guide to Digital and/as Public Space

An initiative by The Bentway and From Later, Digital and/as Public Space is about exploring the ways people and places relate through software, and the potential of those relationships to evolve what public spaces are capable of being and doing. Rather than imposing rigid categories, this field guide invites you to explore your way through a landscape of ideas, concepts, forces, and possibilities surfaced during the 2021 Digital and/as Public Space initiative. And to construct your own unique view of the *field*.

This field guide was designed by Nomadic Labs, a future-oriented design studio focused on designing and developing inclusive civic projects and digital products.

We would like to express our gratitude to the Digital and/as Public Space micro-residents who contributed to this project: Sady Ducros & Richard Thomas (The Foresight Studio), Garry Ing & Dawn Walker (Hypha Worker Co-operative), Nathan Schneider & Luke Miller, Raad Seraj, Mitchell Akiyama, and virtual care lab; as well as sector-wide contributors including Melissa Johns, Ashley Jane Lewis, Gabe Sawhney, J. Soto, Mitchell F. Chan,

Niki Little, Patricio Davila, Jen Zielinska, Sam Redston, Salome Asega, EYEBEAM, imagiNative, and iNdigital Youth Collective.

The Digital and/as Public Space initiative was carried out in online spaces using digital technology to collaborate over distance and time. We acknowledge the complex channels of our information ecosystem stretch land, sea, and sky. We recognize the machinery of computing as a mineral technology, reliant on elements extracted from the earth. A tremendous debt is owed to the human and environmental sacrifices allowing our global network infrastructures. We humbly offer our deepest reverence and gratitude.

Digital and/as Public Space is about the creation of shared and inclusive public space. As collaborators are geographically distributed, we would like to acknowledge the lands which we each call home and the important relationship between people and place. We do this to reaffirm our commitment and responsibility in improving relationships between nations and to improving our own understanding of local Indigenous peoples and their cultures.

The work of From Later and The Bentway takes place on the treaty lands of the Mississaugas of the Credit and the traditional territory of the Huron-Wendat, the Haudenosaunee, the Métis, and many other Indigenous nations. Tkaronto, “the place in the water where the trees are standing”, is now home to many diverse Indigenous people. We recognize them as the past, present and future caretakers of this land. We would like to pay our respects to all who have gathered and will continue to gather in this place.



About The Bentway

The Bentway leads a creative movement to reimagine the possibilities of public space. We are a next generation arts institution and Toronto's first urban Conservancy, exploring the changing nature of cities on a global scale.



About From Later

From Later is a Toronto-based foresight studio. We monitor and make sense of change, developing clear-sighted and judicious futures perspectives.

Special thanks to the Balsam Foundation and the Canada Council for the Arts.

BALSAM FOUNDATION



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