

diagrammatic media

subjectivity, ecology, event // a dissertation prospectus

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0 // Introduction

0.1 Diagrammatic Media Arts (and Schizoanalytic Sciences)

Media Arts and Sciences (MAS) assembles research and creative practices in arts, human computer interaction, engineering sciences, and critical media studies in a transdisciplinary nexus that holds that the ability to analyze and create with emerging technologies is key to making meaningful change in the modern world. First identifying inflection points in complex social processes, one may then use their experimental design and making practice to make positive interventions. But the institution that founded the first MAS program, the MIT Media Lab, recently found itself embroiled in a nexus of controversy which raise questions about what constitutes meaningful change. Historian of science and technology Orit Halpern wrote an editorial entitled “A History of the MIT Media Lab Shows Why the Recent Epstein Scandal is No Surprise” (Halpern, 2019) in which she interrogates the game theoretical dilemma of the Media Lab imperative slogan (“Demo or Die!”¹), the lab’s corporate sponsorship model, and short-sighted approach to complex problems.

The Media Lab’s crisis comes in the wake of mounting disapproval of technoscience from both academics and the broader public. While the public is concerned with corporate actors and failing regulators, other discourses revolve around the entrenched assumption that, in one way or another, technology will save us from our problems. “Technoutopianism is dead” proclaims the subtitle of a recent Science and Technology Studies essay collection (Mullaney et al., 2021) A constant barrage of techno scandals in recent years have amplified the alarms sounded by the broader STS community about the interwoven crises of cybersurveillance (Zuboff, 2019), algorithmic operating de facto in the vacuum of state governance and the acceleration of system oppression in computational social, political, and economic infrastructure (Chun, 2006; A. R. Galloway, 2006; Pasquale, 2015; Bridle, 2018). Public policy campaigns and Netflix documentaries indicate a mounting skepticism of the optimism that drives technoscience.

While some are tempted to burn Media Arts and Sciences to the ground, inevitably others are scurrying to launch a “2.0”. While the Epstein scandal has certainly been a moment of reckoning for the MIT Media Lab, MAS and adjacent arts and technology spaces also deserve scrutiny. In the time of virality, it is fitting to ask: have we caught something along the way? How much of our activities have been pre-determined by witty

¹ Later this slogan was changed to “Deploy or Die!”, and finally to “Deploy!” at the recommendation of then President Obama during visitation (Ito, 2009).

false dilemmas² Following Arundhati Roy, if the pandemic (and Media Lab's public crises) are portals, perhaps it is time to determine what's worth bringing along. As a way of setting the stage and articulating the stakes of my own intervention in MAS, this dissertation's introduction provides historical and genealogical context by asking: "How did we get here?"

This is precisely the question that guides the schizoanalytic practice of philosopher, psychoanalyst, activist Felix Guattari. Guattari worked with patients suffering psychosis at the experimental clinical La Borde outside Paris in a clinical setting from the 1960s until the end of his life. Guattari worked beyond the limits of Freud-Lacanian psychoanalysis. This meant developing analytic treatments not only for those suffering neurosis but also psychosis. He developed schizoanalysis practice which "tries to understand how it is that you got where you are" (Guattari in Watson, 2011, p. 8) This works by evaluating the model of the world the patient has heretofore and, if necessary, works together to build new models that prove useful (Watson, 2011, p. 9). To this end, we can understand this genealogical analysis and the interventions that follow as a schizoanalysis of MAS.

0.2 Cyberlibertarian Tendencies

This schizoanalysis of MAS steps through its pre-history. Starting in 1968, we find a counterculture-cum-cyberculture glistening with psychedelic optimism, Whole Earth utopianism, and technofluent new communalism. As a particularity of the counterculture's rejection of 1950's white suburban conservatism, these technolibertarian tendencies raise up the sanctity of the individual ("do your own thing, man") (Roszak, 1995). Historian Fred Turner interweaves the disintegrating threads of the post-political psychedelic utopians of California Counterculture of the 1960s and 70s with the nascent technological revolution of Silicon Valley (Turner, 2006). The new cyberculture rebukes politics in favor of techno-utopic cosmic aspirations stemming from bottom-up, bootstrapping organizations. The year 1968 bore many fruit to this end. Douglas Engelbart's infamous Mother of all Demos not only promised but demonstrated an imminent personal computing system that embodied his project of "augmenting human intellect" to grapple with complexity. Jasia Reichardt's *Cybernetic Serendipity* art exhibition (Reichardt, 2018) exposed 60,000 people to what the computers created for the military could do for art – and in turn what arts could do for military-funded technology. Stewart Brand, the camera person for MOAD, published the first issue of the *Whole Earth Catalogue*, which promised liberation through collective access to tools and led to the development a proto-internet. Engineer and artist Frank Molina published the first issue of *Leonardo*, a

² In full fairness, even my own school had its own violent injunction "program or be programmed" printed on tee shirts, ostensibly as a punch-up of the Media Lab slogan.

seminal art-science journal that took as its primary function “serving as a channel of communication” for experimentalists engineering (increasingly computer engineering) and artistic practice (McCray, 2020).

These events help us to recognize the sedimentation of a new subjectivity which would later give rise to Media Arts and Sciences. Simply put, the model is technolibertarian, in so far as it posits that we need the right tools (techne) to create freedom (liberty). Techne enters a new scale via the cybernetic science of complexity: an individual (connected to a cosmic collective) empowered by technics to make artful interventions in a complex and interconnected world.

After the birth of the entrepreneurial scientist spurred by the Bayh-Dole act, these characteristics are inherited into an academic context by MIT Media Lab by founder Nicholas Negroponte. Two years after the founding of the MIT Media Lab, Stewart Brand wrote about with adoring fascination *The Media Lab: Inventing the Future at MIT*, in which he describes how the spirit of his generation is being carried on a bigger and more robust scale (Brand, 1987). Turner writes how Brand observed how the Lab interrogated “both those human networks and their relationship to information technologies as prototypes of a simultaneously cybernetic and New Communalist social ideal” (Turner, 2006, p. 179).

In its affiliation with prominent research institution MIT and massive corporate-endowed budget, that ideal clearly reaches a new institutional prowess with the Media Lab. Brand does not seem concerned with what has been lost from the original countercultural aspirations in this transformation. But Guattari’s summing up the situation in the late 80s passes today: “wherever we turn, there is the same nagging paradox: on the one hand, the continuous development of new techno-scientific means to potentially resolve the dominant ecological issues and reinstate socially useful activities on the surface of the planet, and, on the other hand, the inability of organized social forces and constituted subjective formations to take hold of these resources in order to make them work” (2005, p. 31).

0.3 MAS proliferations: Integration

Since the MIT Media Lab started its MAS PhD program, universities across the world have created MAS or similar graduate programs to foster novel transdisciplinary practices engaging with emerging technologies: Indiana University and Arizona State University have PhD programs called MAS. Wellesley College offers an MAS undergraduate major. These and myriad programs with similar names evidence a critical mass, suggesting a cresting interest and investment in the affordances of such a transdisciplinary figuration.

Much of these institutions go beyond the rhetoric of Demo or Die, inflecting the transdisciplinary and technical pragmatism of MAS in their own way, with their own faculty, staff, students, and resources. What

are we talking about then we say MAS? It is not a canvas onto which we can project whatever we want. I do not wish to paint this with a broad brush, but, as I propose to show, there is a shared epistemological and political economic genetic code between these manifestations which we can trace back to cyberlibertarian rhetoric. We find this particularly in:

- 1) the instrumentalization of tools and technique towards a democratic world
- 2) the compulsion to disrupt disciplinary enclosures so to create more integrated experiences and modes of inquiry
- 3) a total rejection of politics (both organizational praxis and critique).

In my longer introduction, I show how this is born out in the conceptual figure of *integration* in the writings of theorist, practitioner, and administrator in Media Arts and Sciences Thanassis Rikakis. Rikakis defines Media Arts and Sciences as “the emergence of a truly integrative hybrid physical-digital culture, which will require the broad integration of knowledge across engineering, arts, design, humanities, and the social sciences” (2013, p. 46). As such he makes an instrumental injunction common in contemporary academic discourse to make a case for inter-, trans-, or post-disciplinary work; in the realm of media, our world is complicated by ubiquitous computing, immersive social media, and algorithmic governance and so we need a new theories and practices to produce novelty commensurate to the pre-given novelty which are called problems in our world. Rikakis et al. targets the lack of a culture (i.e., a digital culture) sufficient to the ingression of digital techniques, workflows, paradigms, etc. as a major psychological, epistemological, and even (via value) economic roadblock to rallying interdisciplinary problem-solving to address global stumbling blocks.

Emphasizing interdisciplinary practices’ possibility to provide “openness of the contemporary historical situation”, these aspects of Born and Barry’s characterizations echo the sentiments and perspectives of MAS. But Born and Barry caution against instrumental rationales like Rikakis’s which positions interdisciplinary knowledge production practices as coordinated responses to the necessities of the world (Born & Barry, 2013).

At first glance the emphasis on culture in Rikakis’s text refreshes stubborn expectations for engineering systems to devalue expression, sociality, and creativity. The figure of culture allows Rikakis to engage the operator of integration at different levels: technics (digital-physical), knowledge and experience production organization (inter/trans-disciplinary), as well as social, behavioral (“as in a sustainable culture”). However,

extending Born & Barry, the instrumentality of interdisciplinary culture assembling disparate computational media techniques to wicked problems is always mediated by the ambient integrative force of market-led economic production. This instrumentality sneaks market demand in the back door as the “new value system” Rikakis proposes. The potential for novelty and invention enabled by interdisciplinarity, appears to us at first as totally open and self-determined, but are guided by invisible hands.

Here we may better understand the interplay between disruption and capture through the concept of integration, which appears in Rikakis’s essay many times to describe different aspects of interdisciplinary research practice with computational media systems:

Disciplinary: Integration describes an approach to creating environments with computational sensing and synthesis, commonly called ubiquitous computing. He describes experiential computational systems as “systems that integrate computing and digital media with the physical and social experience.”

Technical: Integrative describes the process of designing of interactive systems, which draws together values of optimization with meaning. This is a microcosm of arts and technology discourse: “the aggregate experience that experiential media produces needs to integrate optimization with contemplative value and quality of experience in terms of both sensory engagement and depth of meaning.”

Experiential: Integrated knowledge is the product of interdisciplinary practices using computational media systems: “The main goal of these hybrid media systems is to facilitate and enhance an individual’s experience in a way that will lead to more integrated knowledge.”

Clearly Rikakis uses integration playfully and loosely, so there is a danger of reification or equivocation if integration is taken too seriously. But given the instrumentalization of MAS already present in their documents, we might ask: what it is exactly that is being integrated? where does this desire originate? There is good reason to feel uneasy about the word: *integration* has become a corporate speak euphemism for redundancies, and the collective humiliation of striving for *work/life balance* has been replaced by term *work/life integration*.

Integration figures as a primary operator in Guattari’s analysis of modern post-industrial capitalism. Production is constantly absorbing more and more divergent subjectivity into a more and more complete machine. Guattari calls this Integrated World Capitalism (IWC). It is characterized here by Gary Genesko as:

...a minimal model of global and post-industrial capitalism in which three evaluative terms are used: 1) processes of machinic production; 2) structures of social segmentation, considered in terms of the state; 3) dominant economic-semiotic systems, considered in terms of the market. This mode of capitalistic valorization is described on the basis of the order of priority given to the terms, in this case, production-market-state. The key features are that the production is more and more decentered and focused on signs and subjectivity, and that the capacity to integrate and exploit social diversity is unprecedented. (2013)

Embedded inside the machinic production of value via attention and affective extraction that is 21st century capitalism, integration functions in a different scope than the purely affirmative rhetorical connotations and corporate speak resonances. Like Buckminster Fuller's term synergy, integration erases what is discarded in the integrative operation. The horror of being assimilated by the Borg is not being assembled aside others, but rather what of you is excluded.

0.4 What is to be done? A Post-Media Era and a Subjectivity to Come

In this dissertation, Guattari not only allows us to grasp the situation in terms of a negative critique, but also furnishes the project with a pragmatics imminently relevant to creative media research practices. From the 1970s onward, Guattari speculated on the potentials of emerging media technologies to help bring about one of his central philosophical, clinical, and activist aspirations: the formation of new subjectivities. The growing ubiquity of media systems figure prominently both in Guattari's diagnosis of normalizing subjectivity as well as his aspirations for new heterogenic machines (Guattari, 1995, 2005, 2008, 2013). In fact, we can understand his differentiation between oppressive and liberatory processes of subjectification through different approaches to media systems. Guattari differentiates between two forms of subjectivization: Mass subjectification and molecular (or minor) subjectification. The first category he describes as mass subjectivity, capitalistic subjectivity, or mass-media subjectivity. He writes that capitalistic subjectivity "is engendered through operators of all types and sizes and is manufactured to protect existence from any intrusion of events that might disturb or disrupt public opinion." He describes mass media as a "deadening influence" "to which millions of individuals are currently condemned" (1995, p. 5) and calls the subjectivities of mass-media manufacture "as synonymous with distress and despair" (2005, p. 34). It is characterized as dominating and oppressive, and yet he recognizes that and that the production of mass-media subjectivity as part is not strictly top-down or centralized. IWC "tends increasingly to decentre its sites of power, moving away from structures producing goods and services towards structures producing signs, syntax and - in particular, through the control which it exercises over the media, advertising, opinion polls, etc. - subjectivity" (2005, p. 38).

In his later works like *Chaosmosis* and *The Three Ecologies*, Guattari's criticism of mass-media subjectivity is matched by an affirmative and creative project resisting IWC and forces of mass subjectification. This is the second type subjectivity. This broader project he calls ecosophy: a practice of knowing and a praxis of becoming in three eco-logical inflections of subjectivity (the mental, social, and subjectivity). It is a creative and post-psychoanalytic mode of working with ecological subjectivity.³

Media, or more specifically "post-media" plays an active role in the conditioning and construction of these three ecologies: "Technological developments together with social experimentation in these new domains are perhaps capable of leading us out of the current period of oppression and into a post-media era characterised by the reappropriation and resingularisation of the use of media. (Access to data-banks, video libraries, interactivity between participants, etc.)"(1995, pp. 5–6)⁴.

Commenting on the hermetic nature of Guattari's post-media concept (Goddard, 2013), many have asked: what will this post-media like what will this look like? This hermeticism is complicated by the passage of time since these writings; at first, readers may mistakenly think that the age of Web 2.0 (and 3.0) represents a transition from mass-media to a post-media era by eliminating gate keepers and increasing accessibility. Afterall, don't we have access to databanks in Google, video libraries in YouTube, and interactivity between participants in Reddit, Facebook, and Twitter? Though Guattari died before the widespread media decentralization of the Web 1.0, we can dissuade ourselves of any misreading that Guattari would have thought the social media of Web 2.0 was anything but another site of packeting out more mass-media subjectivities.⁵

Guattari's dynamically and ecologically intertwined media, subjectivity, and institution creates a lure for rethinking / reworking MAS through a (micro)politically inflected post-media. For Guattari, subjectivity is not defined in opposition to objectivity, but rather functions as a domain of dynamic and metastable mental information and ecological becoming. Engaged with contemporary psychotherapy and trained in the theory

³ He writes of (mental) ecosophy that "Its ways of operating will be more like those of an artist, rather than of professional psychiatrists who are always haunted by an outmoded ideal of scientificity" (Guattari 2005, 35).

⁴ See a similar passage from the Three Ecologies essay which implicates social ecology as a particular site for the strategic incorporation of post-media: "An essential programmatic point for social ecology will be to encourage capitalist societies to make the transition from the mass-media era to a post-media age, in which the media will be reappropriated by a multitude of subject-groups capable of directing its resingularization" (2005, p. 61).

⁵ Guattari's criticism of mass media is not unique. His mention of public opinion rhymes with Noam Chomsky's much better-known reading of Edward Bernays and Walter Lippmann in *Manufacturing Consent: The Political Economy of Mass Media*. Given Guattari's extensive engagement with Chomsky in his area of linguistics (see "Postulates of Linguistics" in *A Thousand Plateaus*), it seems clear this is Guattari's nod to the Chomsky's 1988 take on mass-media.

and practice of psychoanalysis, Guattari contends that subjectivity cannot be matched against a pre-given already identified in a structuralist system. He writes:

Rather than speak of the 'subject', we should perhaps speak of components of subjectification, each working more or less on its own. This would lead us, necessarily, to re-examine the relation between concepts of the individual and subjectivity, and, above all, to make a clear distinction between the two. Vectors of subjectification do not necessarily pass through the individual, which in reality appears to be something like a 'terminal' for processes that involve human groups, socio-economic ensembles, data-processing machines, etc. Therefore, interiority establishes itself at the crossroads of multiple components, each relatively autonomous in relation to the other, and, if need be, in open conflict. (2005, p. 36)

Subjectivity is produced in a configuration of social, environmental, economic registers also in flux. It is not co-equivalent with the body, the brain, or the psyche. While it may have something to do with “my subjective tastes or opinion”, it is never really “my” subjectivity. The ecology of subjectivity encompasses processes activating humans and non-humans (and not necessarily either). Far from a holistic or organicist system in which parts “work together”, Guattari’s ecology is comprised of components of subjectification that work autonomously, and perhaps in conflict.

0.5 Diagrammatic Media

In this dissertation, examples from my creative practice with computational media help me to think through the speculative post-media era and resituate Guattari’s peculiar and critical techno-optimism in the 2020s, an era in which decentralized media computation is a primary means of both producing and exploiting subject groups. I furnish my media art practice with a concept scavenged from Guattari’s own work, the figure of the diagram. In the semiotics plateau of *A Thousand Plateaus*, Deleuze and Guattari speak about diagrammatics as a particular kind of transformation that “blow[s] apart semiotic systems or regimes of signs”, where a regime of signs is “any specific formalization of expression” (1987, p. 136). Here the diagram doesn’t function akin to how we are accustomed to encountering diagrams as representing a system or a process. We are used to encountering the representative diagram rendered visually (e.g., as instructions in flatpack furniture packages, in historical documents describing the steam engine, in an anatomy textbook, etc.). The conceptual diagram subsumes the visual and representational diagram but is not delimited by either. Deleuze and Guattari abstract the diagram from visual, animating the movement of thought (metamodal) as well as the perceptible (multimodal). As a more-than-textual writing (as the etymology of diagram emphasizes), diagrammatics resituates representational diagrams in a new constellation that prerenders possibility for unfolding.

To return to the question of Media Arts and Sciences, working between disciplines, and socio-economic entanglements, diagrammatics and more specifically diagrammatic media is useful it sets the stage for, as Simon O’Sullivan writes, “allow[ing] for hitherto ‘illegal’ connections and syntheses to be made” (2015, p. 21). I distinguish this diagrammatic illegality from the “transgressive” connections and syntheses we find encoded into the rhythm of disruption and integration. They have different effects in the world and produce different valuations.

The diagrammatic proclivity for ‘illegal’ syntheses transgresses the disciplinary boundaries from which it takes not just by creatively misreading its proclamations but also by malappropriating its axioms and placing them in conjunction with one another. Guattari’s related concept of metamodelization (Guattari et al., 1995) helps us to understand what O’Sullivan calls this illegality. Guattari’s system of metamodelization responds to structuralist accounts of meaning and signification, seeking to “make nuclei of virtual autopoiesis discernible, in order to actualize them. . . rather than moving in the direction of reductionist modelizations which simplify the complex, will work towards its complexification...” (Guattari et al., 1995, p. 61). Philosopher and artist Erin Manning evokes Guattari’s meta model in order to contour the (anti)method of her research-creation practice. She writes that the metamodel “upsets existing formations of power and knowledge” by “actively [taking into account] the plurality of models vying for fulfilment” (Manning, 2016, p. 43). Any plurality of models (metamodel) is permissible, so long as it is not universalizing (integrating). In sum, we can understand the practice of diagrammatics as: the constellation, rendering, animation, and population of a non-linear and heterogenous state space (where states are models).

Diagrammatic complexification and plurality of models can drive and shape a new set of ambitions and potentials for Media Arts and Sciences. In this dissertation I intermingle an amalgam of techniques from media, art, and science to produce a metamodel of post-media research-creation (and post-Media Arts and Sciences) called Diagrammatic Media. Thus a practice of diagrammatic media would carefully and irreverently steal computational media artifacts, processes, procedures to generate new coherency sufficient to an emergent subjectivity. That coherency and media participation in that coherency, may be called diagrammatic. Diagrammatic media enacts an ecology of practice, techniques, and approaches (contra inter- and trans-disciplinary models) as both a media arts and organizational practice.

The chapters of this dissertation begin to bear out how diagrammatic media engages differently with practice than disruptive or integrative approaches to MAS by centering subjectivity, ecology, and event. In the sections below, I outline the three body chapters of the dissertation and motivate them towards the

media arts and organizational practice of diagrammatic media. Each takes a different approach at a different scale to the problematic posed by post-media. Each project attempts to set out as a prefigurative practice that takes seriously the event of the production of subjectivity, which Isabelle Stengers characterizes as when “what has been silenced or derided finds its own voice, produces its own standpoint, its own means of resisting a moral consensus, or a settled definition of what must be taken into account, or for granted. The importance of such events is hard to overvalue” (2008, p. 38).

1 // *Diagrammatic*

1.0 Intro

To begin, a series of observations.

First, on interstices in teaching. Media Arts and Sciences programs encourage students to develop critical, creative, and technical thinking skills. Each student’s unique interplay of these processes informs their individual creative practice. What’s more, this creative-critical-technical dynamic is always already inflected by a student’s spontaneous recollections and connections to the world beyond and before the classroom. However, the dynamic interplay of these processes is rarely explicitly thematized in educational environments. There is no express space for connections between concepts to be drawn. If students are lucky, they will discover their peers and teachers have been bushwacking trails for years between regions of thought and practice. In some cases, the trails have become well-trodden.

Such an intra and extra-curricular interplay is captured by Guattari’s notion of diagrammatic thought. How else can signifiers from disparate semiotic registers like computational thinking, somatic experience, and critique of political economy conjugate and declinate each other?

Second, from starting points in my own PhD. After formally departing musicology, I felt paralyzed by the open end of transdisciplinary study. What were the rules or relations that governed why or how one moved between disciplinary bounds? When some idea or study did catch my interest, I might second guess myself: *you can’t get there from here*, an internalized disciplinarian subjectification. Of course, as anyone who is *in* on this way-finding joke, there is a way, but it is it not *the easy way*.

Schizoanalysis, Guattari’s life project implementing metamodelization in a clinical setting, “tries to understand how it is that you got where you are” (Guattari in Watson, 2011). Metamodelization works by evaluating the model the patient has heretofore and, if necessary, works together to build new models that

prove useful (Watson, 2011). Likewise, interdisciplinary⁶ research-creation is the construction of new models “to build a new subjectivity” (Watson, 2011). What is the glue holding these models together? Why is it not *easy* to go there from here?

In a recent article “Animation and Information”, Thomas Lamarre takes up proto-computer engineer and co-founder of the NSF Vannevar Bush’s 1945 essay “As We May Think” and Bush’s memex device to describe “an ecology of pathfinding” (Bush, 1996; Lamarre, 2021). Bush’s essay transforms observations about information management during the war effort into a more permanent elaboration of this knowledge organization practice, which would need to continue specialization or disciplinarity (characterized by vertical depth) while enabling, facilitating, and the coordination between disciplines (characterized as “lateral connections”). He proposes the memex, a protocomputer device that proceeds the mechanics of the hyperlink. Lamarre’s question is about “how acts of animation and processes of information have been coupled to construct a form of knowledge.”

Self-animation and lateral connections are analogous to schizoanalytic-metamodeling and diagrammatic media, respectfully. The reader may have already recalled my earlier citation of O’Sullivan’s characterization of diagrammatics as process of moving concepts around “as if on a table”. Lamarre’s characterization of the memex as a wayfinding ecology recalls the anecdotes beginning this section, as well as Guattari’s many cartographic figures of thought. What would a system look like that picks up Bush’s trail? Following Guattari, that links up with the trail system where psychoanalysis ends?

1.1 Diagrammatic: Thought in the Act

These questions and observations inspire *Diagrammatic*: an interactive digital and physical system for organizing, connecting, and diagramming ideas and concepts. *Diagrammatic* is a prototype for collective and collaborative, gestural and physical, thinking in the act. It draws on concepts of meta-modeling and diagrammatics from Guattari, while leveraging some insights from 4E cognition which emphasize the role of the body in thinking and writing.

In study, practices such as notetaking and diagramming help people to record and organize ideas, arguments, and references. Notes and diagrams then serve as important tools for making sense of the event in real-time as well as after the fact. Diagrams and notes can also do important work in connecting learning from a certain event to other activities from the learner’s life (other courses of study, stories and experiences, media objects, histories, etc.).

⁶ Or Undisciplined as Guattari scholar Gary Genosko names it (1998).

Consider a clip from the 2000 film High Fidelity. The protagonist played by John Cusack is at a critical life/work/romance crossroads. His friend finds Cusack in his apartment reorganizing his extensive music collection “autobiographically”. The Cusack character tacitly admits something fundamental about our relationship to media and the artifacts that house them: we see the world around us constituted as objects already imbued with meaning made rich by our experiences of our world. Digital media objects are no different. I am asking how we could better equip our modes and technologies of writing to express these relations, and how the body can be more meaningfully brought into the fold.

I propose *Diagrammatic*, a computational media system that augments conventional drawing, notecard-based or post-it diagramming practice with media contextualization tools. These tools aim to broaden how these practices invite these peripheral connections encouraging digression and embellishment. A key mode of registering this digression is through a technique I call the media bundle.

Below, a rundown of *Diagrammatic* functionality:

- uses webcam to recognize/track notecards or drawings (on wall or on table)
- each notecard is (computationally) pegged to a MediaBundle (media bundle is a JSON array containing media objects)
- diagrammers populate the MediaBundle with heterogeneous media objects (videos, sound, images, text, BibTeX) to contextualize the subject of the notecard
- the wall and card acts as a gestural interface (allowing for swiping through media bundle, playing, pausing, displaying text).
- the media objects of the bundles are either a) projected next to the card or b) displayed on a nearby screen/speaker
- the collage of cards serves people as a diagram they can dynamically reorganize
- media is tagged with latent metadata that could be used to connect media passively and or suggest references to other

As a result, one may use the MediaBundles diagrams they create for a variety of purposes:

- as a presentation medium to explicate an aspect of coursework to their peers
- preparing a paper or informal response
- brainstorming a project
- telling a story
- making a book with a new kind of writing

Consider the software program CataRT developed at IRCAM over the last 15 years (Schwarz et al., 2008). Musicians can use this software to algorithmically digest pre-recorded or live sound files and distribute them into feature spaces. The sound chunks are plotted on an XY grid according to algorithmically determined sonic features. The musician navigates and traverses this 2D gesture space, concatenating sonic chunks into novel sequences.⁷

Likewise, a wall of post-its and their sutured media bundles form a gesture space — determined not algorithmically but according to whatever meaning-making schema the student or teacher finds suitable or wants to try out. Instead of navigating through a sonic feature spaces, diagrammers treat the wall or table of cards and media objects as a site for navigating content and expression non-linearly. As I have previously mentioned, it takes unabashed influence from groundbreaking systems designed for organizing thought (like Vannavar Bush's Memex, Douglas Engelbart's NLS, or even Ted Nelson's Xanadu). Here are a few of those updates⁸:

Diagrammatic is gestural and screen-lite, using sensors to track your movements and gestures to move through and is screen-lite (some set up has to be done from keyboard or mouse, but after it's running, it's projected onto a table top or wall in the home).

Diagrammatic is collaborative, but asynchronous first. Too much over our time during the pandemic has become overly striated and stacked into 60-min Zoom Zone chunks. The sheer repetition begins to occlude our sight of intentionality. Informed by deep work, slow scholarship, and open-source ethos, *Diagrammatic* is built on top of Git. This means you can choose to collaborate with others by publishing your diagrams on a shared Git repository. As a result, you share your work only when you're ready by pushing to the Git repo, and view changes and updates from others only when you're ready by pulling.

Hyper-media has had its chance: what does more-than-hyper media look like? Modern personal computing experiences are largely built on the same concepts of connectivity introduced in Engelbart's Mother of All Demos. This includes our ability to "jump on a link"; the hyperlink was the suture that strung electronic documents together into what we now know as the world wide web. This nonlinear structure was given the name "hypertext" by Ted Holm Nelson in 1962, and its nonlinear nature has led many scholars of new media to describe hypertext as a rhizome in the spirit of Deleuze and Guattari. But as the philosophers say themselves, "a Rhizome must be made."

⁷ If the reader is unfamiliar, a YouTube search of "CataRT" will likely yield clarifying results.

⁸ Please see appendix 1 for a full illustration of diagrammatic workflow.

The Book is Dead, Long Live the Book; Long Live the Multiple, the Multiple Must be Made. In both the collaborative and individual works of Deleuze and Guattari live many observations of the inadequacy of the book to novel modes of meaning making (Deleuze 1992, Deleuze and Guattari). In the introduction to *A Thousand Plateaus*, they write that the book re-enacts and reinforces the binary logics that scaffold much of modern thought. Deleuze prophesied a time in *Difference and Repetition* when book-writing will be regarded as “the old style” of doing philosophy, surpassed by other forms branching from the arts and cinema.

Alternatives to traditional academic publication have had considerable impact on how and what kinds of knowledge is generated in certain disciplines, like blogging and continental philosophy or the website and the digital humanities. A sensitivity to the more-than-book in these communities has led publishers to give authors the ability to incorporate non-textual media (sound, video, datasets, code) into their workflows.

Thought-in-motion. European music history teachers like to tell an anecdote about the beloved, stormy, and effusive pianist-composer Frederick Chopin: he improvised his works at the piano before recording them to page, but was always fraught to recall the music as he had played it in the imminent moment.

Speed setting: Goldilocks. If the blogosphere that animated para-academic continental philosophy (speculative realism) in the 2010s was full accelerationist speed (Dean, 2010), and the book proceeds at snail pace (both in the production timeline and interval from inception to feedback), *Diagrammatic* aspires towards Goldilocks speed. By allowing for social-media style interactions like commenting, annotation, liking, etc., web-based publishing platforms facilitate and accelerate the iterative conversational flows that drive discourse.

1.2 Technical Implementation

Because *Diagrammatic* is the most technically ambitious project of the dissertation, I will detail my plan and rationale for its implementation. *Diagrammatic* is built in JavaScript, utilizing libraries like p5.js, m5js, and others. It may be asked of me: after more than a decade of training and producing artwork MaxMSP, “Why JS?” I have a few responses.

- Audience considerations. Despite its power, MaxMSP falls is not optimized for creating applications for non-programmers. Though *Diagrammatic* is more niche than consumer projects, non-technical users expect an ease-of-use factor that doesn’t come with Exporting patches as apps is bulky and success is subject to OS variances. Many more people know how to open and navigate within a web browser. In both web and DigiPhysi versions, this has clear accessibility advantages.

- Max doesn't run on Linux, and that means the CPU/GPU for a stand-alone hardware version tags at least \$400 (vs. RPi, ~\$100).
- The concept of the media object and media bundle is well suited to JSON (javascript object notation) both functionally (JS objects can store information relevant to rendering and displaying media objects) and ontologically (media bundles are arrays containing media objects).
- Max patches are stored using JSON. This could be the basis of an argument to use either Max or JS. One could also say that MaxMSP is a particularly sound/video synthesis individuated *Diagrammatic*.

1.3 Experimentation

My goal with *Diagrammatic* is to bring it beyond proof-of-concept to a prototype that can act successfully in the field with enthused participant diagrammatic authors. Philosopher and artist Muindi Fanuel Muindi is a key collaborator. His willingness to work with the system in the proof-of-concept stage was inspiring and provided key feedback and so I believe we will continue to have a responsive and lively collaborative work in producing. Muindi has a veritable treasure trove of ideated diagrams and media bundles from an extensive year-long reading group (Anti-Social Anti-Bodies) on various inflections of sociology. His intention is to convert some aspects of the proceedings (>30k words) into diagrams using the system. Once Muindi has a functioning diagram which has been uploaded to Git, we will host several workshops where Muindi will show his work and I will train folks on *Diagrammatic*. By gathering and targeting participants with experimental writing practices, I hope to solicit participants to engage with Muindi's diagrams and make their own additions and bifurcations.

2 // Mental Ecology: Three Machines for Fighting Anxiety

2.0 Intro: Ecosophy, New Media, and MAS

Guattari is perhaps best well-known for his departure from the structuralist and linguistic focus of psychoanalysis, but his project retains a commitment to understanding mental life through philosophy, cybernetics, physics -- and yes -- psychoanalysis and linguistics (albeit through a post-structuralist configuration). These line of inquiry falls under the umbrella of mental ecosophy (also referred to as mental ecology). He writes:

For its part, mental ecosophy will lead us to reinvent the relation of the subject to the body, to phantasm, to the passage of time, to the 'mysteries' of life and death. It will lead us to search for

antidotes to mass-media and telematic standardization, the conformism of fashion, the manipulation of opinion by advertising, surveys, etc. Its ways of operating will be more like those of an artist, rather than of professional psychiatrists who are always haunted by an outmoded ideal of scientificity. (2005, p. 35)

If we agree with Guattari, concerning ourselves with mental ecosophy is fundamental to imagining alternatives to the dominant media systems and telematics. What would it mean for media arts and science and diagrammatic media take seriously the mental ecology? Setting aside the scientism of psychoanalysis and psychology, what insights could diagrammatic practice of research-creation with computational media furnish about the realm of mentality?

Guattari first needs updating. The crises of mentality effected by capitalist production have evolved, and the concept of normative subjectivity has become ever more transient with new modes of highly individualized (targeted) production of subjectivity. And yet dominant trends persist. One of these is the ubiquity of anxiety as a reactive affect mobilized by forces of neoliberal cognitive and communicative capitalism to effect widespread alienation and immobilization (Dean, 2010; The Institute for Precarious Consciousness, 2014). Contemporary media systems are well known for their exploitation of cognitive and affective activities – producing states of anxiety or paranoia then alleviating them through dopamine induced soothing. This is an open secret about which, seemingly, nothing can be done.

HCI researchers James Pierce and Carl Disalvo point out that despite the open secret of anxiety loops, it is an affirmative rhetorical sheen that glosses the rhetoric of networks and contemporary media systems (2018). What's more, the speculative and propositional mode of thought, "what if, what if, what if", lifted up by process thinkers and activists alike can also intrude into the everyday, effecting a dark spiral. "Another world is possible" is the seed of an internal horror story, prototyping dreams becomes prototyping nightmares – everywhere anxious people become stuck in dreadful ruminations asking "what if, what if, what if...".

As practitioners of computational media, who understand both computational thinking, aesthetics, and affect, we are specially situated to take a different tact. What if, following the Institute for Precarious Consciousness, we set ourselves to building machines for fighting anxiety? In this chapter I show three prototypical projects with computational media to this effect, interweaving creative and analytic techniques from imminent critique, speculative design, science fiction, psychoanalysis, pop psychology, heterodox economics, game studies, and process philosophy. These case studies begin to construct a metamodel of a contemporary mental life that engages with our contemporary technological and affective barriers to the

affirmative collectivity that 1968 strived towards. Contrasting with contemporary mental health / wellness rhetoric around resilience (or the more macho *anti*-fragility), a critical aspect of these machines are their fragilities or vulnerabilities. My intention is not to enact a naïve art therapy or to help construct coping mechanisms as a homeostatic alleviation of anxiety, but rather to resituate private experiences of precarity and alienation within an experimental HCI practice engaging the post-media project.⁹

2.1 Economic Anxiety: The Subject-Reaction and Technologies of Togetherness

An esteemed and controversial academic job coach bemoans the myth of a mutualist academia. They publicly reject accusations of being a grifter, proclaiming instead that academia is the real grift. What if their accusation is the only *correct* response to those accusations? The only *correct* move in the game of the neoliberal university: make yourself an anti-fragile academic who learns to surf the chaos to get yours. Scarcity is answered with scarcity. Your turn, repeat.

Of course, the anti-fragile academic is a fairy tale. But fairies are real -- in so far as they participate in the production of subjectivity. In their newest book, Stefano Harney and Fred Moten describe this as *the subject recoil*, -- that violent retraction from the real spaces of abundance that are co-composed in the classroom.

They describe this as an oscillation both in economic, technological, affective, and subjective terms:

“This *subject reaction* is provoked by continuous measurement. This subject reaction is a turn, a recoil. And it is one that has been subject to the speed-up, which occurs when the algorithm is put to work, when logistical capitalism kicks in, when continuous improvement and total quality management trigger this oscillation between praising and appraising, between exaltation and shame.” (2021, p. 92)

This is the chain of subjective milieus in which this project enters, asking the question, situated as grad students in the global north: what is a machine for fighting economic anxiety? In this section, I present two sets of work which take very different approaches to this question.

First is to accept this oscillation as an immutable status quo and to adopt a practice and aesthetic of capitalism realism. This is not the nihilistic submission to neoliberal capitalism, but rather an intentional subjective bifurcation, what has been called institutional camouflage or strategic duplicity, to territorialize spaces both for vulnerability and togetherness, as well as for an individuality rugged enough to weather 21st

⁹ See Guattari: “It is equally imperative to confront capitalism’s effects in the domain of mental ecology in everyday life: individual, domestic, material, neighbourly, creative or one’s personal ethics. Rather than looking for a stupefying and infantilizing consensus, it will be a question in the future of cultivating a dissensus and the singular production of existence” (2005, p. 50).

academic life. To split a personality, to code switch, to get full and to fill our bellies, because “erst kommt das Fressen, dann kommt die Morale” (Brecht et al., 2015), and “The subject reaction is the only way to get paid.” (Harney & Moten, 2021, p. 92).

In this portion I write-up ITITITinc, a start-up working with (among other things) the game theoretical technologies of cryptocurrency. Cryptocurrency, in particular Ethereum mining and smart contract functionality (Buterin, 2013), allowed me to codify a collectively governed financial trust my cohort could invest in with their technical labor or resources and provide funding for special projects or subsidize living expenses. The commitment to cryptocurrency, a technology built on zero-sum game theory, artificial scarcity, and the presupposition of discrete economic agents, was in itself a duplicitous articulation with the economic semiotics of IWC (Guattari, 2005, p. 48). What’s more, the elegant game theory-cryptography mechanisms which assure the validity of a particular block is a mechanism of consensus, rather than the dissensus which is raised up by Guattari and other activist theorists. As such this economic machine enacted a parasitical resistance (A. W. Fisher, 2020). But this white strike was broken up by the theft of all our hardware, a loss which precipitated the end of the project and the shattering of the reactive conceptual persona.

Intuitively there was always something unsustainable about the maintenance of a persona devoted to duplicitous professionalization. As such it does not provide a model of resistance to be replicated. This machine meant to fight economic anxiety only created more of it. We want for something more than a lesson learned, but what, if anything, can be learned from this failure? I propose that it can help us to think differently about as well as the interplay between reactive and resisting subjectivities in conversation with media systems which instantiate the economic and metaphysical categories of theft and property (following Lieh Tzu).¹⁰

This leads me to the second set of work: computational media etudes and sketches which enact economic logics not predicated on an axiom of value linked to scarcity, but rather value based on a socio-aesthetic category of collective production. For these experiments I created three responsive media systems which registered some sensible phenomenon as a heuristic for affective flow:

- a fleet of 12 handheld thermal sensors which transduce changes in heat into sound

¹⁰ See the anecdote about theft about the rich Mr Kuo of the Ch’i State and the poor Mr Hsiang of the Sung State. Hsiang follows the Kuo’s advice to “be a good thief”, which Hsiang takes literally and comes into trouble with the state. Kuo corrects him by clarifying that his sense of theft referred to the taking of public property and not personal property.

- a floor-projected particle system where corporeal movements can act as attractors or repelling forces
- a reactive light installation inspired by the phenomenon of *renao*, a Mandarin word meaning literally heat and noise which describes the aesthetic character of a bustling urban space (Bratt et al., 2019)

These are radically different systemic dynamics than cryptocurrency, rhythming more with Bataille (1991) than blockchain. There is no consensus mechanism, no adversary or game theory. In Brian Massumi's 99 *Theses for the Revaluation of Value*, such systems may be understood as "affect-o-meters", measurement apparati "following the qualitative-relational flow in real time, or in periodic refreshings of the figure. This registering of fluctuations in the affective intensity indexing the playing out of tendencies would be an aesthetic accompaniment to the process, in the process: an immanent accentuation-differentiation of it" (2018, p. 131).

But the "economy of abundance" (2018, p. 124) is not naively utopian or science fiction. Throughout this text, Massumi identifies and warns against forces to be warded off: digitality, transactionalism, anthropocentrism, trolls, consensus, individualism, incentivization, neoliberal and libertarian legacies. What are the speculative techniques which are sufficient to warding off anxiety – ever at the precipice of the mental ecology?

Jean-Hughes Barthélémy says anxiety in the psychic-ontogenesis of Gilbert Simondon is:

this very particular emotion that calls for the realization – which is, however, most likely impossible – of the I without the We. This means that the passage from vital individuation to psycho-social or 'transindividual' individuation via the psychic 'transitory path' will have to be provoked by an emotion that is not anxiety. (Barthélémy, 2012, p. 206)

A machine to fight economic anxiety then is not only economic but must also be affective. My proposition re-examines of mutual indebtedness as a mutualistic factor by which people can build trust and collective value (a phenomenon related but to be contextually distinguished from Graeber, 2014; Lazzarato, 2012, 2015). Divergences from social ritual can also build resentment.¹¹ Following Stefano Harney and Fred

¹¹ From (Harney & Moten, 2013, p. 156): Man, I remember being little, being in Arkansas with my grandparents. My grandfather would give somebody a ride like 80 miles from our little town to another little town in his little 1969 green Buick Skylark. And there was this whole ritual process that would occur, and it had a couple of different parts to it. One part would be that somebody, my grandpa, would give you a ride, and before they'd get out of the car, the person would say, "how much do I owe you?" And he'd say, "nothin." Sometimes he'd feign a kind of, "why would you even ask me some shit like that?" They'd come a whole way just for a certain set of performances. "It don't mean nothin. Man, get out of this car," or something like that. But, if somebody got out of the car without asking that shit... He'd be like, "son, don't be like that." You have to acknowledge.

Moten, it is a debt that is unrepayable, a kind of bootstrap loop building a collectivity intoned by an affective atmosphere, an “elaboration” of a mechanism of exploitation that points towards a mutualism to come (2013, pp. 58–69).

2.2 Portacular Resonances: Cosmic Attunement in Radiophonic Fields as Machines for Precarious Consciousness Raising

Changing gears, you accelerate passing under the 101 bearing east. You cross over the canal which is at once:

- a transversal bore through the settler grid thrown down as an oppressive tabula rasa
- a cut in the valley demarcating the land into municipal parcels (goodbye Tempe, hello Mesa)
- and a portacular relic of the Hohokam into the deep time of the engineered flow of life into the valley

You pass into Mesa, the 34th largest city in the US inside the 5th largest urban area, and, perhaps to distract from the high concentration of poverty you are temporarily passing through, you fumble with the stereo and click on the radio. It is still at factory settings. The AM tuner is set to 530kHz. You don’t hear conservative talk radio, Christian evangelism, or cumbia. You don’t hear any station broadcast at all -- only the sound of radio atmospherics.

Approaching a stoplight at an intersection matrixing 16 discrete lanes of automotive traffic and 2 lanes of light rail, you need your hand to change gear again. Or maybe you have an automatic transmission and your hand is free to noodle towards some other station. Or maybe you are in an Uber. In 2018 you are in an Uber with an engineer testing an autonomous driving system.

No you’re not, it’s 2019 and Uber’s autonomous driving program was cancelled. You had to change gears and you’re at a stoplight next to a lightrail station. A train opens its doors and twenty people pour out onto the concrete platform radiating 150-degree heat through their shoes, up their legs, into their faces on a breeze. You’re distracted by empathy, then by shame, then by empathy again. Then you’re splashed by a coolness that could only come from a deep well of feeling winding through Phoenix’s timeline, across the canals bringing water to the desert, and beside the electrical wires powering the train.

The lightrail departs the station before the auto traffic light signals your own departure and you are splashed again, this time by sound. Not the engines muffled by the glass window – what you hear comes from your car speaker. You are feeling open, you turn it up, you drop in to an upside-down, you pass into a minor key with the signature no sharps, no flats: turn information theory on its head; let noise become signal, signal become noise.

What speaks is a radiophonic sonification of fluctuations of the electromagnetic field. These fluctuations are caused by natural and anthropogenic electrical activities alike: lightning, semi-truck brakes. These frothing, pulsing, undulating sonorities pull one into the tide, beckoning one to surf along the infrastructure of the “infernal city of Phoenix” (McHugh & Kitson, 2018), to diagram serendipitous attunements to excesses and entropies of monstrous complexity in motion, amplifying otherwise tacit aberrations from the efficiency and control of managed urban infrastructures and ecosystems.

These experiences, introduced to me by friend and collaborator Brandon Mechtley, became the basis of a collective artmaking-, thinking-with practice in 2019 and early 2020. We began by giving tours of Phoenix sounds to some of the visitors coming through our department. Less of a sound walk which fetishizes serene listening experiences, these tours were opportunities for reflections and discussions about the extensiveness and intrusiveness of urban infrastructure or deliberations about the Anthropocene.

We also began a field recording practice, which felt decidedly different than acoustic ecology, where it functions all too often as material for creating atavistic elegies for a soundscape gone by. Along with the AM radio recordings, we took dash cam videos which gave a sense of an automotive embodiment, the characteristic Phoenician mode of moving through the world. These recordings became material for the immersive installation *Idiotic Resonances: Uncanny Valley of the Sun*.¹²

In this piece, we sliced the video frame into three discrete channels displayed on as a triptych of cheap flat-screen TVs oriented in landscape. This segmentation of the digital image suggested a non-human perception, such as the computational perception employed in autonomous cars. Each video channel was linked to a discrete audio channel, which was played either from DIY parabolic speakers overhead or from speakers near the TVs. To engage with the piece, folks were invited to sit on bench seat salvaged from an old van or truck. The audio streams were summed and pitched down several times and routed through a bass transducer installed in the car seat, emphasizing the physical permeability of bodies by the electromagnetic field.

You're curious, you keep driving. Eventually the light rail drops off, Apache becomes the 88, and the urban environmental assets seem to stop rendering. Through the speakers you hear your blinkers, your wipers, your accelerator. You and your car are one (or many?) and you are soothed. A passing semi slams on their brakes, and the electromagnetic fluctuations erupts through the speakers in your dash and you become anxious.

¹² *Idiotic Resonances* was shown at the Uncanny Valley show curated by designer and architect David Corns at Wave Pool Gallery in Cincinnati, OH in Summer 2019, as well as at the University of California, Irvine during the Experimental Engagements event at SLISA 2019. You can view a single-channel video & stereo-audio mix down of the material here: <https://www.youtube.com/watch?v=LLjcZgxuLpQ>

We used the recorded material to compose for this playback system. We worked with the rhythmic interplay of sound where one wouldn't expect it and silence when one would. This pointed us to Mark Fisher's interwoven concepts of the weird and the eerie, which operate more dynamically than the Freudian *unheimlich* – castration anxiety machine (2017). The weird ("that which does not belong") and eerie ("Why is there nothing here when there should be something?") play at an open system, or rather, the entrance of something novel to that which was previously treated as closed. The entrance of that alien "allows us to see the inside from the outside." Fisher says this can be the starting point for a weird psychoanalysis: "the eerie is fundamentally tied up with questions of agency. What kind of agent is acting here? Is there an agent at all? These questions can be posed in a psychoanalytic register — if we are not who we think we are, what are we?"

After midnight, a childhood friend who attended an Idiotic Resonances performance lecture in Cincinnati drives us up I-75 to my mother's house in suburban Ohio. We have left 530am on just for fun. We're talking about everything, anything. I am tired. Then, someone detects something, turns the stereo up. Speaking, not English, and music – garbled but intelligible. We eventually venture that it might be Hindi (or another language of the subcontinent?). It's possible it's a local transmission – but perhaps the signal bounced off the ionosphere to arrive here?

The eerie agency of the radiophonic electromagnetic field is how rigid bodies are replaced with thresholds, and the physical distance that co-informs sighted perception is shattered by a media co-extensivity that makes 1970s telepresence look like smoke and mirrors. The radiophonic skips the layers of TCP/IP, Zoom log-in IDs and passcodes, and GPU accelerations of modern telecommunications. Its compression of distance proposes a different geographical notion of space than network supported telepresence too: graph topologies are made irrelevant by a spatiality better modeled by non-Euclidian manifolds. Radio creates portals, sutures in spacetime.

Anxiety is relevant as described as a state of psychic individuation in the ontogenetics of Gilbert Simondon. He characterizes anxiety as a simultaneous compression and extension of subject in timespace, a retreat of the individual into a blockage composed of the pre-individual:

In anxiety, the being is like its own object, but an object as important as itself; it could be said that the subject becomes object and witnesses its own expansion according to dimensions it cannot assume. The subject becomes world and fills all this space and time in which problems emerge: there is no longer a world nor problem that is not a problem of the subject; this universal counter-subject that develops is like a night that constitutes the very being of the subject in every point; the subject adheres to everything as it adheres to itself; it is no longer localized, it is universalized according to a passive adhesion that makes it suffer. The subject dilates painfully by losing its

interiority; it is here and elsewhere, detached from here by a universal elsewhere; it assumes all space and all time, becomes coextensive with being, spatializes, temporalizes, becomes uncoordinated world. (Simondon, 2020, p. 283)

Translocality or spacetime compression is associated then both with an anxious state of blockage and an ecstatic stage of collectivity. Yi-Fu Tuan's characterization of anxiety as the dark side of curiosity as security in "The Open Circle" (1979, p. 202). We also see the transductive passage between the milieus which constitute the mental, social, and environmental ecologies. An encounter such as weird and eerie radiophonics promises the possibility of an individuation of a new, more-than-human, cosmic subjectivity (Hynes & Sharpe, 2021), and yet this translocality may trigger a becoming-world which recoils the subject into a pre-individual and anxious state of blockage.

"Just because you create a portal doesn't mean you have to step through it."

In service of building idiotic radiophonics as a machine for fighting anxiety, I am interested parse out in more detail this bifurcation between curiosity, Simondian collective and an anxious blockage. To this end, I propose to investigate the role of sound as a territorial refrain for staging and transductive property for co-composing the nascent subjectivity of the event (P. P. Ferreira, 2008; Ramos, 2019). I also bring in context from other investigations of the catalytic capacity of analog media ecologies, including Guattari's work alongside Franco Bifo Berardi on Radio Alice in the 1970s (Goddard, 2018) which he understood as prefigurative of the post-media era (Berardi et al., 2008; Goddard, 2013; Guattari, 2013; Prince & Videcoq, 2005). Radio art itself affords rich contexts both historical and modern (Balogh, 2015, 2016; Guattari, 1980; Thurmann-Jajes et al., 2019; Thurmann-Jajes & Beyer, 2021; Vasquez, 2018), including artist and theorist Tetsuo Kogawa who interviewed Guattari in Tokyo thrice (Guattari, 1980).

Elsewhere in the 1970s, Guattari introduced the media artists Sherrie Rabinowitz and Kit Galloway (K. Galloway & Rabinowitz, 2003), who became partners in art and in life. Their work gave rise to game-changing telepresence performance and installation works like *Satellite Arts Project*, *Electronic Café*, *Transcontinental Choreography* (Paulsen, 2017). They described these experiments in terms sometimes therapeutic, cosmic, technical, psychological, and even metaphysical.

Is it in analogue, field-based technologies such as radio that contemporary media practitioners could reclaim find something of the techno-optimism which takes seriously the political stakes of the psychic ecology? How can the translocality of radio inform an account of the interplay between the environmental-social-psychic ecologies? Can the dissensual possibilities of free radio activities help us to understand the bifurcation between curiosity and anxiety? To what end can radio fight the anxiety by acting as a machine for more-than-human precarious-consciousness raising?

2.3 Diagrammatic Field Reports: Bikepacking, Pathfinding, and Computer-assisted Schizoanalysis

During the pandemic, I picked up an old hobby of long-distance bicycling and camping out. In undergrad it was “bike-touring”. By now the landscape has changed, and “bikepacking” has rose to popularity, a portmanteau of backpacking and biking, emerged as an outdoor hobby combining elements of bike touring and mountain biking.¹³ The bikes, the gear, and the best practices changed to adapt multi-day bicycling to more remote landscapes and unpaved terrain.

The culture had also changed. The tenor now centered care for self and others, mindful experience and embodied noticing, and decolonial and antiracist engagements with the land.¹⁴ These practices celebrate the joy of cycling and moving through in rural, preserved or remote landscapes while caring for the social, environmental, mental, and political ecologies wilderness-oriented cycling is always intervening in.

We can attribute some of the influx of bikepackers in 2020 to outdoors influencers on Instagram and YouTube, which made the allure and how-to of these hobbies visible to folks going online about being outside in a year of inside. Rereading cycling through these media showed, unsurprisingly, that these experiences had been subjected to the same treatment as the whole of human experience: these sites overwhelming encourage the documentation of bikepacking experiences which are glamorous, overwhelming affirmative, and, arguably, ecopornographic.

It is an open secret that long-distance or endurance outdoors activity like backpacking and bikepacking are replete not only with pastoral exuberance but also mental anguish in the face of isolation, repetition, and challenge. Especially long-term trips are undergirded by physical, financial, and logistical precarity effecting an undulation between anxious and joyous embodied experiences (P. Ferreira et al., 2019).

Filmic and documentarian approaches to documenting bikepacking experiences arguably accomplish the mediation of subjective experience better than image or text media, but “content creators” seem to bemoan their algorithmically enforced servility to affirmative, unchallenging content.¹⁵

¹³ Plenty of sources noted the uptick in cycling during the pandemic. Anecdotes of bike shops sold out abound. As for bikepacking’s popularity, its appearance in two Washington Post articles signals the attention of those in media: <https://www.washingtonpost.com/travel/tips/bikepacking-camping-cycle-touring/>.

¹⁴ See for instance RAR, the Radical Adventure Riders, whose mission “is moving towards enhancing gender inclusivity and racial equity in the bicycle and outdoor adventure scene. We do this by providing connection, education, resources, and support for the community.” The group recently federated out twelve chapters around the US. From <https://radicaladventureriders.com/>.

¹⁵ I have experimented with videographic treatment of bikepacking myself (*I Don’t Remember Being on This Road This Long Yesterday Tho*, 2019), though I found the lack of computational tools and sensing apparatus left much of my media artist métier to wither on the vine.

Another genre of commercial digital tools for cyclists is embodied in the commercial app Strava. Strava uses several modes of data capture to document a ride. In their desktop or mobile UI, the geolocation is stitched onto a map from GPS data. The ride path is indexed by information about change in elevation, heartrate, cadence, and speed. Such applications are seemingly complete as a fitness or training aid which help individuals to better understand challenges in physical performance, and yet are impoverished as tool for understanding the psychical challenges.

New computational tools like ArcGIS StoryMaps, which have become popular in the humanist geographies and digital humanities, present a cartographic space as a canvas which may be annotated with text and multimedia.¹⁶ In mobile computing research, there have been many explorations into how metadata can help to augment storytelling in digital lives (Saini et al., 2014; Viana et al., 2020). What would a practice or a data-rich media composition workflow look like that allows trekkers to diagram their outdoor cycling trips?

Enter the Diagrammatic Field Reports.¹⁷ I have created a field kit for backcountry bikepacking. The kit consists of two battery-powered RaspberryPi computers with HD cameras. These units shoot at 720p at 60fps or 1080p at 30 fps and can be mounted different places on the bike to get different camera angles. I also use commercially available cadence and speed sensors (adhered to the crank and the hub respectively) which measure my pedaling speed (in RPM) and my ground speed.¹⁸ This sensor data is written as an audio buffer alongside the video data.

This zippered data is apt for not only a videographic but a computational media treatment. For instance, the well-known technique such as slitscan (Levin, 2015) works quite well with video moving through space. In slitscan regions of a video are displaced forward or backward in time. These displacements can be parameterized by pixel; the other sensor data can be configured in different ways to distort these pixel displacements dynamically.

I will also use the sensor data to help me to select “regions of interest”, This is a pragmatic concern when dealing with video from several days of six-hour rides. When selecting for subjective experience however, this poses a novel schizoanalytic problem: What constitutes interest? One could dissociate while baking in the sun for a psychologically grueling 10-mile stretch on a state highway. These moments may pass without notice into the unconscious. On the other hand, distinct events of anxiety (passing into hostile territory or

¹⁶ ArcGIS story maps, <https://storymaps.arcgis.com/>.

¹⁷ This work is supported by the SIGCHI sponsored HCI & cycling workshop: <https://cycling.offis.de/call-for-papers/>

¹⁸ I am also interested to use accelerometer + gyroscope which would provide interesting data about changes in the bicycle's orientation relative to the floor.

accidently onto private property, becoming lost, having trouble finding a place to dispersed dry dock) will obviously be indistinguishable from data events.

What results, I propose, is a practice of working with cycling and video data as creative material. I borrow field report here to blur between the humanistic story and the scientific data sheet and field report.

Following Walter Benjamin:

“When information supplants the old form, storytelling, and when it itself gives way to sensation, this double process reflects an imaginary degradation of experience. Each of these forms is in its own way an offshoot of storytelling. Storytelling ... does not aim to convey the pure essence of a thing, like information or a report. It sinks the thing into the life of the storyteller, in order to bring it out of him again. Thus traces of the storyteller cling to the story the way the handprints of the potter cling to the clay vessel.” (Benjamin et al., 1986; cited in Guattari, 2005, p. 44)

By framing this a field report, I double down on how scientific documents tell stories, how data always bares the handprints of the technician. How can working with (video or sensor) data become a way to empower rather than degrade experience? How does the diagrammatic field report, as a form of digitally mediating storytelling work as a kind of diagramming or metamodeling?

To this end, I put the *Diagrammatic* system for embodied meaning making to use as a space in which my algorithmically treated videos may be embedded as media objects. This motivates an additional function not described in the proposal above; pushing the *Diagrammatic* platform beyond the text-based systems of performance and representation, I am interested to experiment with using sensor data to animate the diagrammatic environment itself, creating a data-driven non-linear pathway through videos.

Apropos paths, I should draw a distinction between the character of movement in the previous example, where one follows whimsy or surfs on the infrastructure of the city like a derive (see also: Sakrison, 2021). Instead of surfing along a flow, bikepacking requires a movement from A to B (“getting there from here”). In this movement you encounter problems along the way, chaos impinging on your circle: a closed road or a downed tree, a weather system washes out a road, a ferry across Lake Michigan is cancelled, etc. This movement we may call pathfinding, a metaphor Thomas Lamarre picks up in Vannevar Bush and the self-animation of lateral connections. Lamarre says:

Paths are collective in their very nature. When you are hiking alone in the wilderness, if you are on a path, you are connected to other people. It is in this sense that there is no such thing as wilderness, or frontiers for that matter, in Bush’s account. If you find a path, you are making a collective. You are

a collective in the making. The pathfinder is neither a rugged individualist nor a member of an established group. Pathfinding is collectivity in the making. (2021, p. 7)

Considering pathfinding as collectivity in the making, my final question is how can this diagrammatic field report system work as a machine for fighting anxiety? We may recall from Simondon that “anxiety is diametrically opposed to the movement by which one takes refuge in one's individuality; in anxiety, the subject would like to resolve itself without going through the collective” (2020, p. 283). Pathfinding helps us to understand something more about the passage from individual to collective, and as well anxiety as it emerges as a blockage both in the field and in Simondon.¹⁹ The pathfinding movement both in the diagrammatic system and in the field brings up other questions related to the refrain, territory, and line (dia).²⁰ My kit works to build up a corpus of media computational interwoven with subjective experience and diagrammatically compose a report that models how it is that *we* got here.

3 // Diagramming the Event: Refiguring the Conference in Media Art Research-Creation

It has become increasingly important for activist thinkers and artists to consider and enact the building of community in the academic departments and community organizations. As @___j0nes___ tweeted recently: “If academics don’t imagine and create the next version of higher education, it will be done by the tech and marketing sections, for their profit, to fit their values.” (2021). This is of course already underway, mostly recently evidence by the influx of “anti-fragile” rhetoric as an organizational strategy. This is an

¹⁹ A fascinating technical-aesthetic implementation of a diagram which moves from a state of pre-individual blockage reluctantly through the collective is the game *Death Stranding* by Hideo Kojima (Kojima, 2019) which makes truly innovative use of network capabilities. A longer explanation is appropriate for the final document.

²⁰ I am thinking here of several discussions from *A Thousand Plateaus*. First, they make a distinction between nomadic movement and movement of the state (1987, pp. 353, 362) which can help to understand the different modes of movement discussed in this section and the last (automotive-radiophonic-drift, pathfinding in the bikepacking field, pathfinding the diagrammatic action). Second, the territorial function of the refrain (which is often drawing a line or a circle) wards off chaos and anxiety (1987, pp. 311–312). The refrain also “names the durational mattering of which affective spacetimes are composed” (McCormack, 2014, p. 7) which provides an experiential point of entry into the question of “region selection”. Third, Deleuze and Guattari’s discussion of the abstract versus the rectilinear line: “the abstract line is fundamentally “Gothic,” or rather, nomadic, not rectilinear [...] Whereas the rectilinear (or “regularly” rounded) Egyptian line is negatively motivated by anxiety in the face of all that passes, flows, or varies, and erects the constancy and eternity of an In-Itself, the nomad line is abstract in an entirely different sense, precisely because it has a multiple orientation and passes between points, figures, and contours: it is positively motivated by the smooth space it draws, not by any striation it might perform to ward off anxiety and subordinate the smooth. The abstract line is the affect of smooth spaces, not a feeling of anxiety that calls forth striation.” (1987, pp. 496–497) Finally, making camp is a very important event in bikepacking, not yet addressed, which we may understand in terms of the territory: “There is a territory precisely when milieu components cease to be directional, becoming dimensional instead, when they cease to be functional to become expressive. There is a territory when the rhythm has expressiveness” (1987, p. 315).

opportunity to introduce a different model: a vulnerable model which embraces precarity as a condition of collaborative co-existence and mutual meaning-making (Lowenhaupt Tsing, 2015).

The final chapter engages the social ecologies of media art research-creation sprung from my experiences curating experimental festivals (SSOO), directing media ensembles (LORKAS), a digital culture media internship (ITITIT), and organizing conferences (PHuN 1-4).²¹ The central case study here is SloMoCo, a year-long conference event embedded within and without the MOCO (Movement and Computing) community. Drawing on precedents like the unconference (see Owen, 1997; Boule, 2011; Massey et al., 2020), SloMoCo takes the pandemic world as a lab for experimenting with the conference as a technology of organization, sense-making, and subjectivity production in the context of movement and computing art and research.

3.1 The Event, The Idiot, The Slowdown

SloMoCo centers the gathering event itself. The event is more than a Facebook category—events are happening all the time on non-human scales of perception and action. Eugene Young characterizes the event for Deleuze as a feeling “that something is *happening*: but the paradox is that, one the one hand, an event can only really be grasped in hindsight (or with foresight), and, on the other hand, we *do* presume that we can refer to incidents, changes, or actions (whether novel or not), that are *currently* unfolding” (2013, p. 116). As such SloMoCo lets go of any notion that we plan the event ahead of time – instead we may think of the activity of organization or artistic composition as techniques for staging.

Like the cosmopolitical convocation whose “efficacy is rather to catalyze a regime of thought and feeling that bestows the power to become a cause for thinking, on that around which there is gathering,” (Stengers, 2005) SloMoCo aspires to create a shifting ground on shift a participant can land among new collaborators. It is an invitation to think, act, compute, and move in a transient collectivity, and then to depart with transformed “knowledge, hopes, fears and memories, and allows the whole to generate what each one would have been unable to produce separately” (Stengers, 2005).

Another player in the cosmopolitics is the idiot (Stengers, 2005; Nocek, 2017). Exemplified best by Melville’s *Bartleby*, the idiot is always saying they “prefer not to”, escaping the binary of transgressive

²¹ I learned an incredible wealth through these experiences. SSOO gave me the technique of the invitation – not a call for proposals to be judge but a promise of hospitality and a reciprocal trust in the resulting community. From LORKAS, that it is difficult but worth doing to do something that isn’t transgressive but isn’t sanctioned either, and that a collective care-driven bottom-up utopic vision of organization is not enough but is worth working towards. As graduate students, PHuN’s motivation was to build a scholarly community that would support our work.

insubordination and servile compliance. That escape causes the system of thought to seize, effecting a slow-down. To create slow-down like Stengers calls for in the *Manifesto for Slow Science* (2018) in an art-science community challenges the institutional touchstones of a performative scientism many computational media art communities have embraced in recent years. In reaction to an increasingly quantified knowledge-production economy wherein artistic inquiry must make its 'research outputs' metrically legible, these adoptions include a parliamentary judgement of knowledge via double-blind peer-review (which both assumes what constitutes a contribution ahead of time and pre-defines dissent so to bound discussion & inquiry²²), positivistic-teleological rhetoric like moving the field forward.

In our current moment the slow-down is more important and relevant than ever. The pandemic has brought global travel to a halt, conveniently proceeding the repercussions of the climate crisis, and triaging the necessity of post-carbon social formations. Like all aspects of society, the university has only begun to rock from turbulence in the wake of the global Covid-19 pandemic. Arundhati Roy has called the pandemic a portal that our culture will step through; she asks: what will we leave behind? And what do we want to build on the other side (2020)?

Academic conferences provide opportunities for intensive sharing, experiential learning, and critical discussion. They also aim to foster intellectual growth and comradeship building. For many, conferences serve as a shot of energy and inspiration to bring back to the lab. In effect, the (pre-Covid) conference was a "working" vacation: a retreat and a deep dive: a third space that was not the lab and was not home.

Zoom and analogous formats struggle to replicate many of the facets of these events. How can we design an experiential, engaged, and enacted event for MOCO stakeholders (long-time presenters, former organizers, founders, new participants, students of MOCO both present and future?)

In part, it may be that the intensity of the co-present event and the physical and mental stamina it demands of attendees, presenters, and organizers is not easily transposed to synchronous, telematic gatherings. Our private home economy interjects itself into our social and working lives, clamoring for immediate attention, disrupting the professionalized visage we curate for our zoom call: dogs barking muddling the audio algorithm, an exercising roommate rippling through the virtual background. The caffeine-fortified manic energy of the co-present conference seemingly evaporated, the Zoom conference

²² From a different kind of work: "consensus-based decision making has been experimented with for many decades among alternative political and social movements and has been resurgent in recent years in the assembly-based movements coming out of the Arab Spring and Occupy. Conceived as a form of direct democracy, often under the anarchist banner, in practice it easily leads to paralysis: the despotism of the most cantankerous or the least adventurous. Since an individual (or in "consensus-seeking high majority rule" models, a small minority) can block any action, it usually leads not to anarchic adventure and effervescence, but to least-common-denominator ennui" (Massumi, 2018, p. 119).

demands the same stamina we have for all our meetings: Ignore the fatigue of prolonged sedentary activity and screen-bound social performance just long enough to avoid betraying exhaustion.

Virtual backgrounds and mute buttons are Band-Aids on the fissure that's erupted and elided public and private (Coccia, 2020). The research question I ask is: how can we design an event that treats virtual and telematic engagement as a feature and not a bug? What does this third space look like? With its penchant for observing and prototyping embodied experience, technical know-how, know-what, know-when (see Gill, 2015; Polanyi, 1966), MOCO is uniquely situated to respond playfully to this speculative invitation.

3.2 Experimentation and Techniques

SloMoCo is underway. We've run a Spring phase, are wrapping a Summer phase, and will run a Fall phase.²³ Following the Unconference maxim that the people who come are the right people (Owen, 1997),²⁴ we have organized the flow of events around who has responded to the call. Our official criterion for acceptance is 1) relevance to the MOCO community and 2) the committee's capacity to host.

In the Spring we hosted 25 groups and 19 in the Summer. We hosted them at 3- or 4-week intervals in order to develop an iterative reportage. The events have taken place on zoom to accommodate a community scattered around the globe. They are comprised of ready-to-go submitted works, microresidency²⁵ proposals for extended research and work development, or seminars²⁶ conceived by committee members and community. SloMoCo also hosts a vibrant provocations track²⁷ that spans the three phases. There are

²³ See Appendices 2 & 3 for diagrams of activities.

²⁴ OpenSpaceTechnologies and the Unconference are reluctant interlocutors with this project. I follow Harrison in dealing with organizational techniques as a technology which has a relationship to the commons and the holistic approach to the event. There are however artifacts of cyberlibertarian thinking ("vote with your feet") and borderline mystical reliance on self-organization. Self-organization is incompatible with a notion of hospitality or vulnerability, in which we are always reliant on one another.

²⁵ Microresidencies (MR): About two-thirds of submissions are for MR proposals, indicating a hunger among applicants for community and a sense of embeddedness. MRs meet for an hour every week with a cohort of 3-5 other MRs. Each cohort is assigned a counselor who facilitates discussions and intermediates between the MRs and the SloMoCommittee (communicating needs, wants, issues, etc.). MRs are under no obligation to show completed work, but are required to present their MR proposal at a public event. They are encouraged to use the cohort time for user testing, WIP showings, critique, or discussion. In the Spring, the MR culminated in a group exhibition at a public art show in Phoenix. In the Summer, the MR culminated in a 90-min critique session.

²⁶ In the Summer we planned three seminars to accompany each PW/MR public event. The seminars included invited guests, readings and a thematic or problematic which grounded both discussion and the PW/MR presentations. At the conclusion of Summer, we repeat these seminars as three Art lounges (a panel, a set of performance, a collection of workshops) at the SLSA.

²⁷ Provocations track At MOCO there is a history of auxiliary events which proceed or intervene. MOCO 2017 featured an unconference-like event called UNCOMO (uncomputable movement).²⁷ This inspired Provocations events at MOCO 2018 and 2019. Ahead of the conference, the organizers centered a provocative question so to solicit counter-provocations. At the synchronous event, provocateurs were put in conversation with each other. These events have been organized by a dedicated and ambitious group over the years. UnCoMo in 2017 was organized by Adam Russell and Joel Fletcher. Provocations 2018 was mounted by John Maccallum and Teoma Naccarato. In 2019 the pair was joined by Jessica Rajko, and these three are organizing and running all of provocations at SloMoCo. SloMoCo hosts Provocations as its own track spanning all three phases. In each, they revisit, remediate, resituate what has come before (Spring centered 2018's topic, Summer 2019's).

many bootstrap loops that have emerged as an organizational tactics. We have also used technologies like Discord as a hub for everyday conversation. A Manifold instance hosts conference proceedings and allows for social and collaborative commentary on texts, and other media.²⁸ These tactics I propose, part of a set of technologies for knowledge production. However, organizational technology powered by sheer organizational will is not enough, and the success of the event cannot be reduced only to its tools used to construct it. What else makes this work? What is the importance of hospitality (Aristarkhova, 2020; Ettinger, 2006, 2006; Johnson, 2006) to this experimental spaces?

3.3 Evaluation

One participant said to me that they appreciated SloMoCo because it produces more UNCOMOs: more interventions, provocations, and spaces for thoughtful reflection. We may borrow a more evocative phrasing from Erin Manning and Brian Massumi speaking about an event they co-created: “the focus in the creation of techniques of relation was on catalyzing a continuing collective culture dedicated to an ethics of engagement. We wanted to set into motion something that could grow and take us with it. In short, the event would be evaluated according to it seeded rather than what it harvested” (Manning & Massumi, 2014, p. 92).

What is the difference which makes a difference? How does SloMoCo seed further events? The temporal constraints of my graduate program do not permit for a longitudinal study, wherein we may see how experiences at SloMoCo become diffracted by other art-research events. But the 9-month long duration of SloMoCo has built itself a long runway already. Many participants have remained active for one, two or three phases.

As a mode of evaluation, I propose an interview phase post-SloMoCo which will augment the data corpus already gathered for this project.²⁹ Borrowing from qualitative research methodology (Kvale & Brinkmann, 2009), from the MOCO provocations practice (*MOCO Provocations*, 2018), generative performative techniques such as those found in Fluxus’s text scores (Harren, 2020), and Guattarian schizoanalysis, I will

In Fall, a new provocation will be proposed that riffs through the two phases of SloMoCo provocations so far. At SloMoCo, the Provocations organizers have developed an idiosyncratic mode of facilitating. By weaving old and new provocations together, by bringing new people into conversations in video conversations and in discord meetups, they have generated rich and more expansive body of provocations.

²⁸ Manifold App: <https://manifoldapp.org/>. SloMoCo Manifold instance: <https://www.slomoco.surf>

²⁹ To this end I will apply for funding from GPSA to get some incentives to offer those SloMoCo-ers who participate. Between 10-20 contributions would be provide much data sample size and be indicative of the ~25 microresidency groups, 3 provocations organizers, and ~15 practice works presenters.

compose a score that will ask an interviewee to revisit and narrate aspects of their SloMoCo participation through creative response.

A sample score could be:

- Find/design/create an object/video/process that helps you to think through how your work related to another work that struck you.
- Look through the proceedings and find a project you know nothing about. Find/design/create an object/video/process that relates that work to a work you first thought of when we thought of SloMoCo.
- Think of a moment of SloMoCo that was not about anyone's project. Find/design/create an object/video/process and relate that to a possible future for your own project.

In the ~30-45 minute interview (a recorded Zoom interview), the interviewee will share and narrativize these objects, providing an agenda for the time but not overdetermining what other conversations may unfold. I will analyze the interview data with an attention to both critical incidents (Tirri & Koro-Ljungberg, 2002) and the minor gesture (Manning, 2016). These data may help to produce insight regarding the organizational, media-computational techniques, and modes of hospitality and staging sufficient to producing a novel, ecological subjectivity of the event.

Coda

The introduction set the stage for the larger diagrammatic media project by taking a long view of Media Arts and Sciences anchored in the year 1968 and the landmark infusion of technical thinking into the arts and psychedelic post-politics. It set up other data points: MIT Media Lab and its reliance technocratic rhetoric (cyberlibertarianism), and MAS as articulated through the figure of disciplinary, technical, and experiential *integration*. In the longer introduction, these data points will receive a deeper theoretical interpolation.

The body paragraphs set into proposed contribution or correction or interpretation of MAS: diagrammatic media. The above sections have served as both summaries and outlines of the three central sections of my proposed dissertation work. They have attempted to introduce the stakes of these computational media projects through Guattari's ecosophy, in particular practice of diagrammatics, schizoanalysis, and metamodeling and their relation to the production of novel media systems. In a more disciplinary framework, we can understand these stakes as organizational, theoretical, and political. These sections of the prospect aim to lay down lures for MAS to think and move with, while furnishing a different set of

theoretical and practical tools. The dissertation will have a coda, which will serve a purpose not unlike this section.

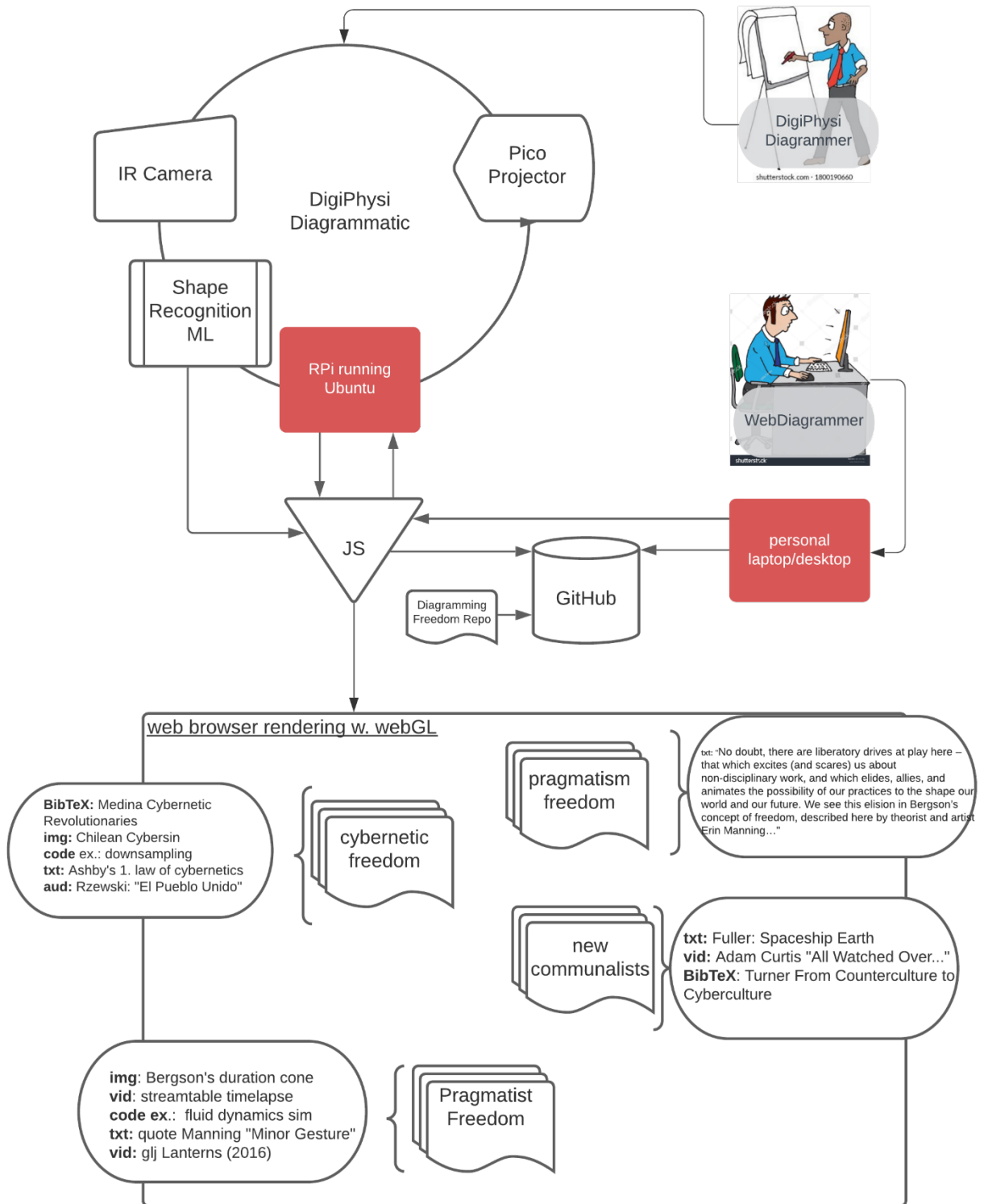
The coda will also look forward, onward. On one hand, it will look deeper into the thickets, to places where paths need be made. As the first part of chapter two suggests, we are always amidst a prevailing and dominating economic regime of signs. This requires taking seriously the lessons learned in that section: a subject recoil always slaps back. As a prefigurative praxis, diagrammatic media is not utopian but situationist. The game-theoretical subject is not kept at critical distance by an ironic embrace – it must be warded off. Likewise, what new goblins of semiotic capital lie in wait for diagrammatic media as an engineering of machines to fight anxiety? What semiotic regimes threatens the precarity that makes us vulnerable -- that impels us to consent to be more than a single being³⁰ – with the precarity that effects the subject recoil, or the anxious spiral that demobilizes thought in motion?

On the other hand, it will look for other paths this project can take, other collectivities it can join with. There is a hunger for critical and schizoanalyzed optimism about the possibilities of aesthetic-political inquiry with computational media. The *diagrammatic* project promises a life post-dissertation, which could build out in different directions according to its inflection. Slow movement and computing technoscience will continue to have ripples in the community and I look forward to seeing what fruits are born of the seeds that cannot be measured by this dissertation project. Computational media also promises to lend a hand to building new collectives for engineering machines to fight anxiety. What would these practices of media-art-creation and thinking together look like in the classroom? In a workshop? Or as the seed for an event? As the problematic driving a lab, or, perhaps an extra-academic organization? It is, for the slow now, a proposal for a dissertation.

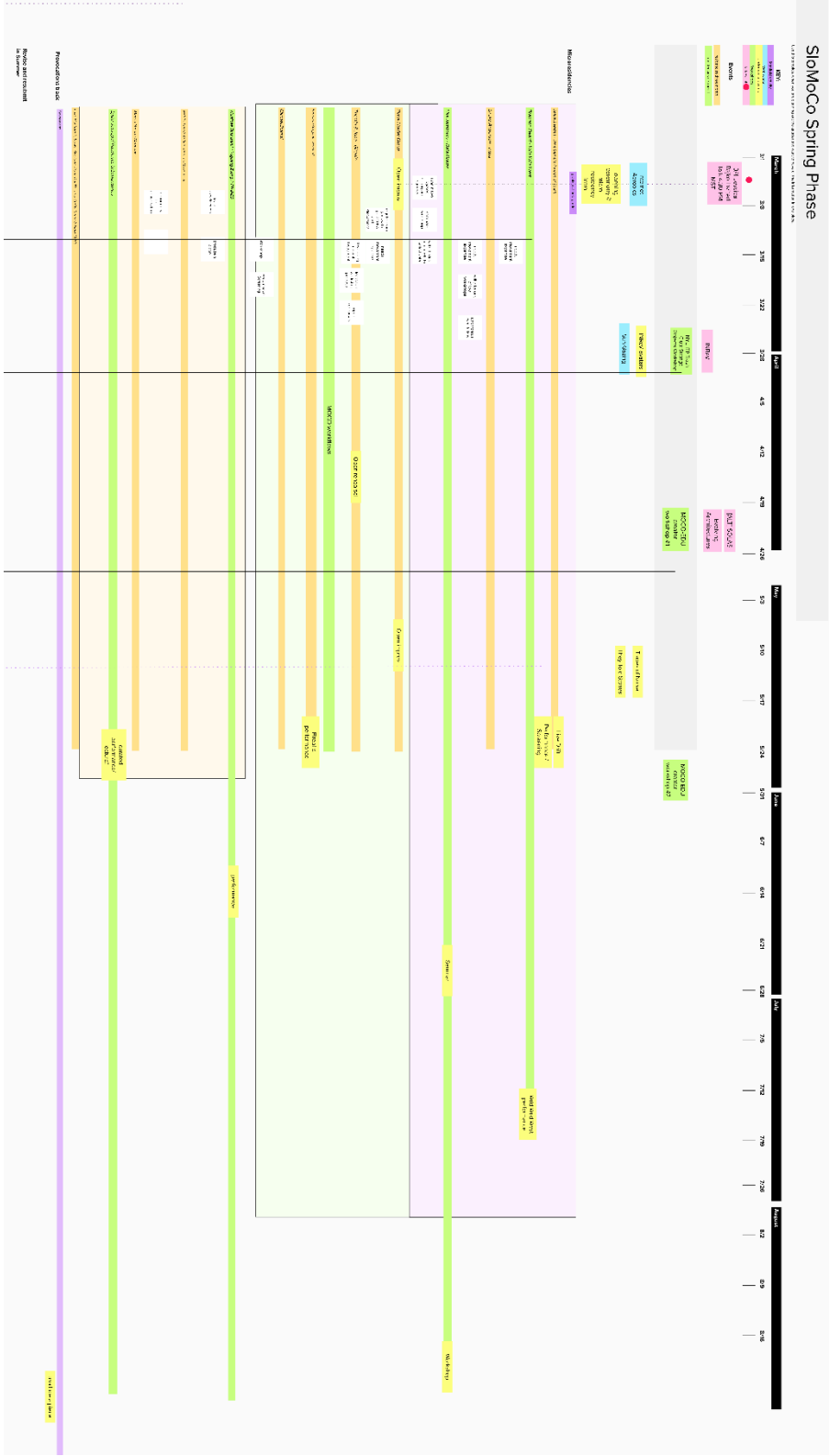
³⁰ This is a reference to the title of Fred Moten's series of monographs, which refer to a quote by the Caribbean philosopher Edouard Glissant.

Appendices

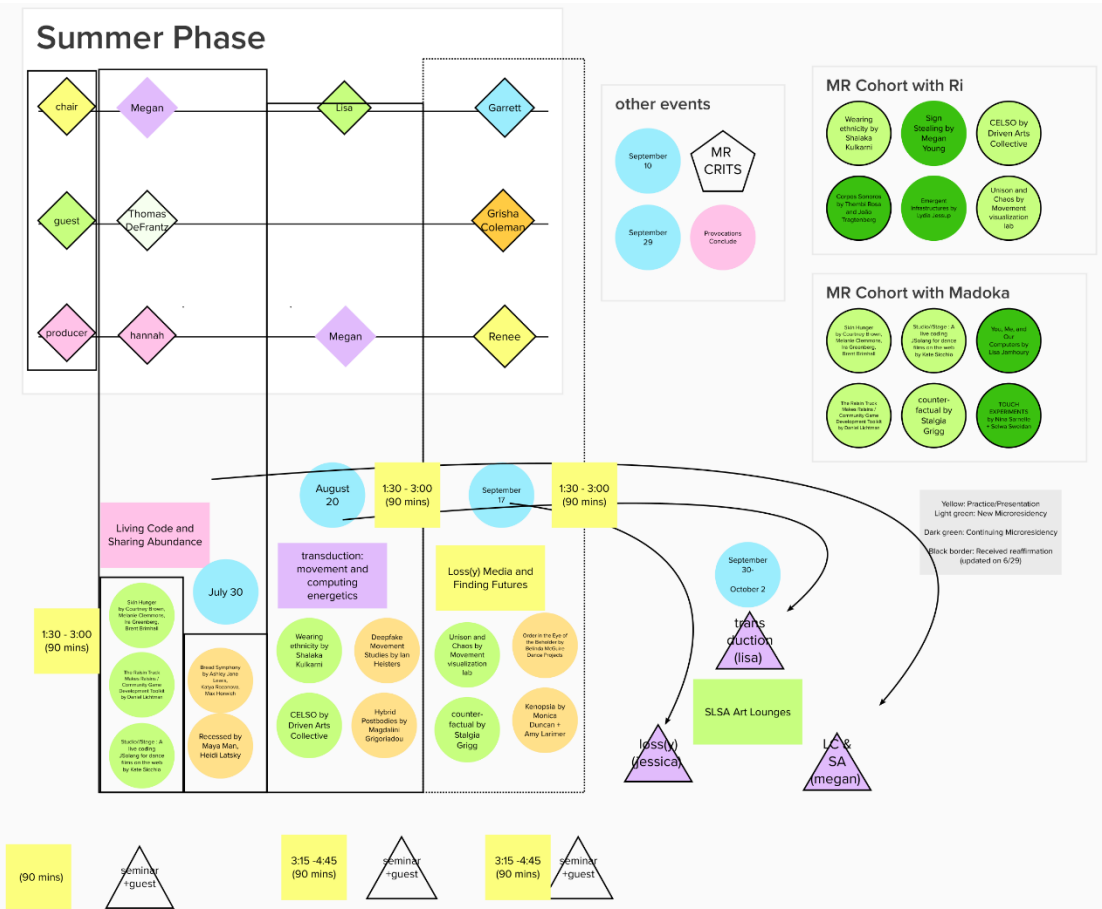
Appendix 1: Diagrammatic Chart



Appendix 2: SloMoCo Spring



Appendix 3: SloMoCo Summer



Timeline

	Writing			Pragmatics		
Time	Draft	Revise	Defend	Dev.	Experiment	Data Collection
Summer 2021	Intro, Ch. 1 Prospectus			Ch. 1, Ch. 2, Ch. 3	Ch. 3	
Begin Academic Year 2021-22						
9-10.2021		Prospectus	Prospectus		Ch. 3, Ch. 2	
11-12.2021	Ch. 2	Intro		Ch.1	Ch. 3	
1-2.2022	Ch. 3	Ch. 2			Ch.1	Ch. 3
3-4.2022		Ch. 3				Ch.1
5-6.2022	coda	Ch. 1, coda				
7.2022			Diss			
8.2022		Diss				

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