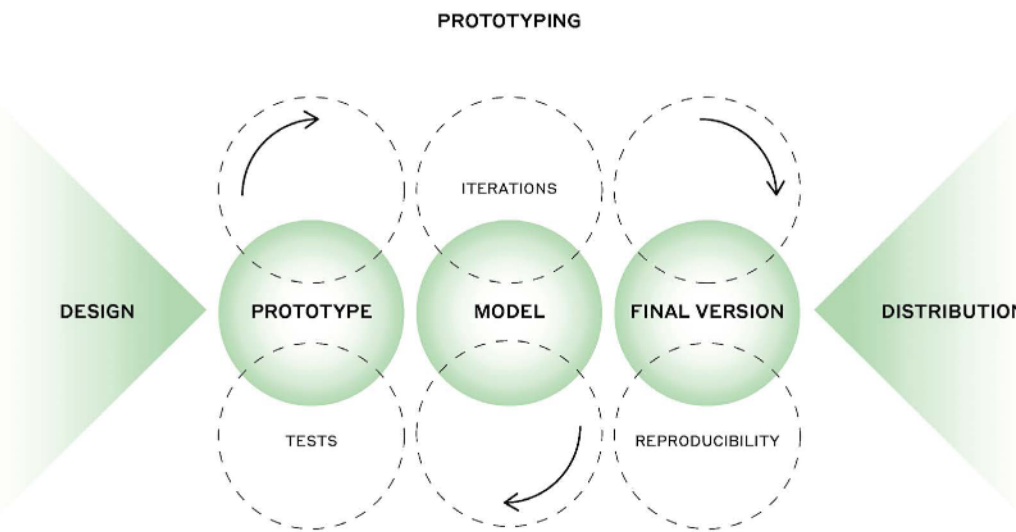


# The Trap of Time: Prototyping a Summer School

Federico Pérez Villoro tests alternate curricula with Materia Abierta, a summer school in Mexico City, reiterating learning models and offering a space to reflect on the ethics of the present and the future.



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Materia Abierta is a summer school on theory, art and technology established in Mexico City. Conceived as a space to reflect on the urgency of our presents and futures, the programme aims to interrogate the political, economic and ideological forces that condition contemporary cultural production today and to favour other forms of action and knowledge. Under the premise of being a permanent prototype of itself, it is reconfigured each year exercising evolving educational models. This text elaborates on Materia Abierta’s prototype metaphor and

considers its possible inadequacy, given that it is inevitably linked to a linear construction of time that the programme rejects and to the promise of an ultimate version that in this case will never come. Prototypes are temporary representations of products or services that are to be improved. They serve as provisional evidence to justify designs and anticipate shortcomings. In addition, they demonstrate their replicable condition: they contain encoded patterns that make them reproducible. When we say that Materia Abierta is a prototype of itself,

<sup>1</sup> “I’ll be your interface,” at the Welcome to Tomorrow, Today workshop held by Second Thoughts (co-founders of Materia Abierta), Mexico City, November 13–14, 2015.

however, the emphasis is on its incomplete, indeterminate, imperfect state. It is the rejection of a suitable format and of any repeatable formula. We seek for each iteration to be exposed to unexpected conditions in order to open deep rearrangements in our learning ritual.

During a workshop we organized in 2015, in an exercise prior to Materia Abierta, designer David Reinfurt refers to J. G. Ballard’s idea of science fiction perhaps being “the best sort of realism. Maybe the only possible one.”<sup>1</sup> This idea gave participants a point of departure to think about the future as a better guide for the present than the past. However, in recent years the space for speculation has narrowed. It is increasingly difficult to imagine societies in distant futures; the worlds that we can envision, closer in time, are dramatically different from those that we have taken for granted.

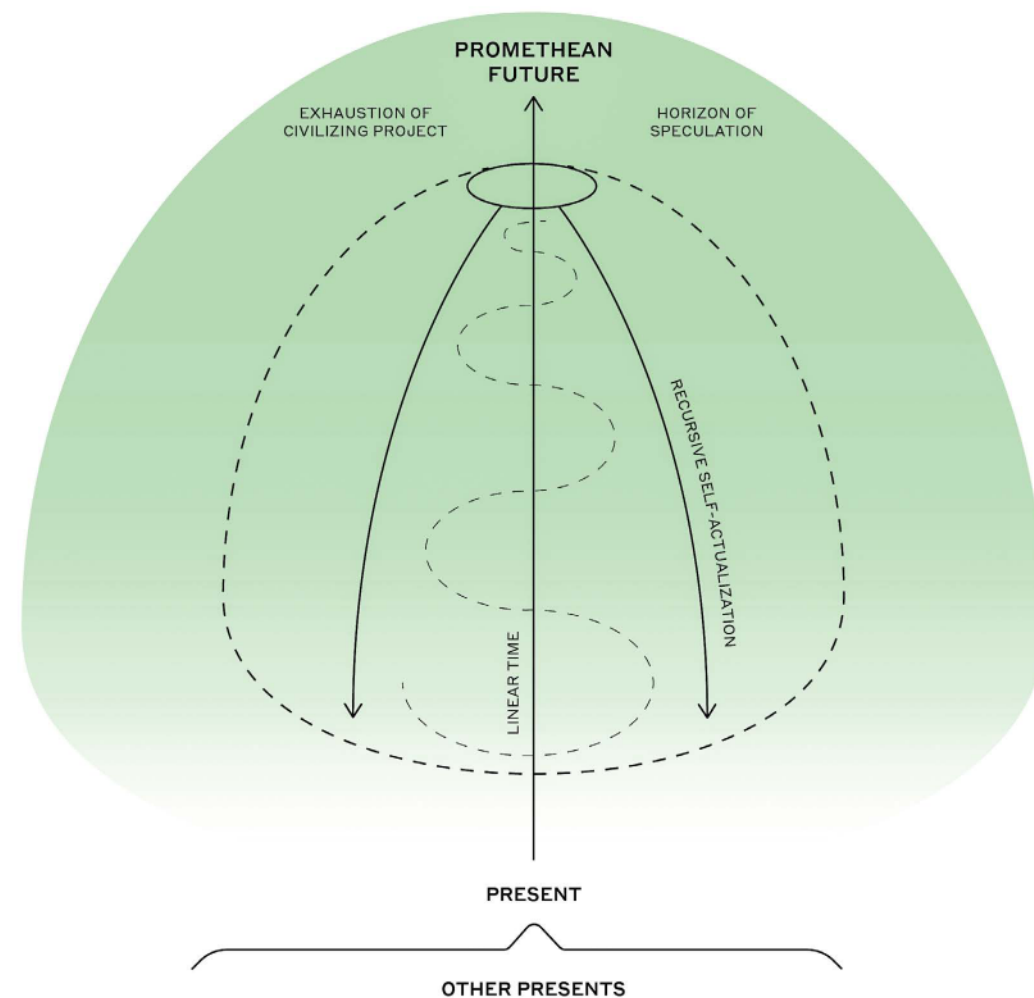
Discussing the future, then, requires recognizing it as a rhetorical construction in the function of capital and its various forms of oppression. This was the starting point of Materia Abierta’s 2021 edition. In the words of Mônica Hoff and Eva Posas, the curators of the programme, “As a project of condemnation or salvation, the idea of the future is intertwined with linearity of time defined by epistemologies and colonial narratives of conquest, dispossession and domination. Therefore, the concepts created to name it are not only endless but insufficient, given that beyond the end of the future as the end of the world, what we are really facing is the exhaustion of a civilizing project built in the order of reason.”<sup>2</sup>

Studying the future can be paradoxical. On the one hand, it can be an excuse to disengage with the past; on the other, it is imperative to find ways out of the contemporary neo-liberal economic paradigm. How can we approach current problems with the urgency they demand without reproducing the conceptual trap of time?

Our 2021 programme aimed to disarm both the messianic myth of a better future and the (increasingly accepted and comfortable) apocalyptic imaginary of the hereafter. The future in Edenic terms operates under the common pretext that the salvation of humanity is arranged in an expression of itself that is not yet present. Thus, the dismissing of current collective action and the projection of civic responsibility towards the future obfuscates versions of the present that have already manifested themselves and that demonstrate feasible and more just social expressions than their dominant counterparts.

“We have to put the past in front of us,” said philosopher Luciana Parisi during a seminar she gave as part of our programme.<sup>3</sup> It was an invitation to rethink the space-time geometries that support the illusion that the apocalypse is yet to happen. Her article “Recursive Colonialism and Cosmo-Computation,” co-authored with Ezekiel Dixon-Román, addresses how the threat of the end of the world justifies social exploitation under the promise of interrupting the self-destruction of the Western white subject.<sup>4</sup> In anticipation of its own limits, the technoscientific model reproduces its inherent violence. Parisi and Dixon-Román argue that colonialism is reformulated by integrating unexpected events over time – domination is updated recursively through processes of self-adaptation, self-regulation and self-regeneration.

The risk of the unknown cyclically imposes the rationalist order. In the words of Parisi and Dixon-Román: “The monologic universalism in the epistemic response to the emergence of contingency creates the apocalyptic scenario where the end of capital is also the end of the human and of freedom.”<sup>5</sup> This inevitably reminds us of the phrase that is repeated like a mantra in academic contexts that study the future and whose authorship has been blurred: “It is easier to imagine the end of the world than the end of capitalism.” A statement that certainly has its place, but is



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also incomplete: What version of the world does this end of the world refer to?

Recursivity is the capacity through which a process establishes itself based on its own definition. Recursive systems are capable of assigning their organization from a constant negotiation between structure and function. It is a common feature of contemporary computing. Layers within neural networks move data in a cyclical way while dividing it into multiple versions of itself seeking to self-evaluate the efficiency of its results. As information flows, the network incorporates

the processing experience and modifies its programmatic nodes in a continuous exercise of abstraction and comparison.

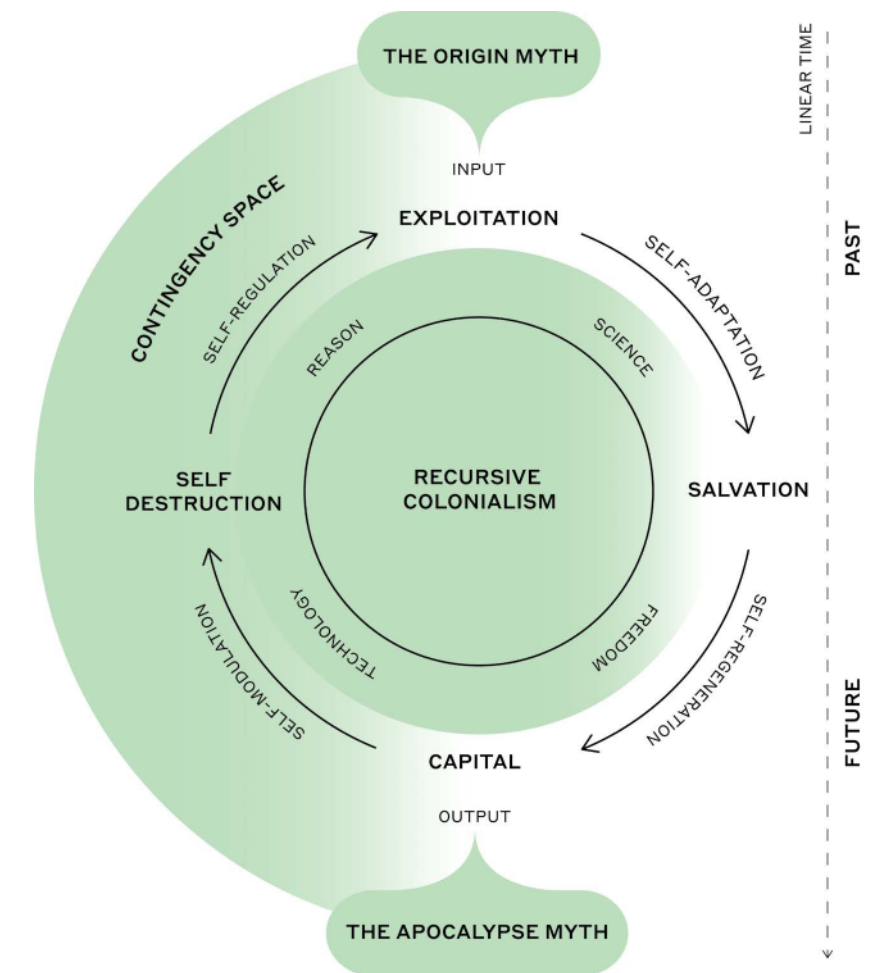
This level of calculus is closer to simulation than prototyping: it depends on the experimental processing of information to evaluate functions under sets of criteria over time. As writer Nora N. Khan points out, simulations are “both literal products of equations that describe what actions can happen inside of a virtual world, and potent metaphors for future-casting.”<sup>6</sup> They are processes that execute

2 Mónica Hoff and Eva Posas, “Ni apocalipsis ni paraíso: Meditaciones en el umbral,” Summer programme curatorial summary, August 17 – September 18, 2021. [2021.materiaabierta.com](https://2021.materiaabierta.com).

3 Seminar held by Luciana Parisi at Materia Abierta, Mexico City, September 10, 2021. [2021.materiaabierta.com](https://2021.materiaabierta.com).

4 Luciana Parisi and Ezekiel Dixon-Román, “Recursive Colonialism and Cosmo-Computation,” *Social Text* (2020). [socialtextjournal.org/periscope\\_article/recursive-colonialism-and-cosmo-computation](https://socialtextjournal.org/periscope_article/recursive-colonialism-and-cosmo-computation).

5 Parisi and Dixon-Román, “Recursive Colonialism.”

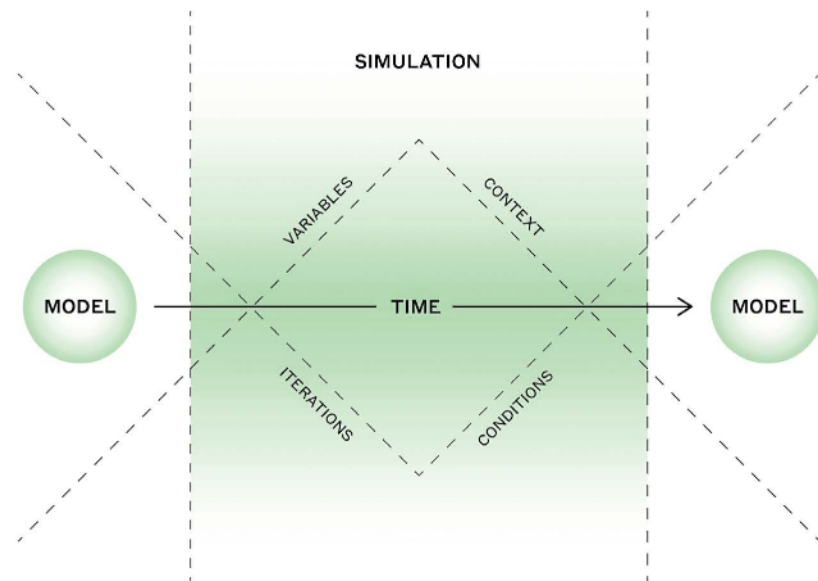


“hypothetical scenarios” through different conditions, capturing the behaviour of a model in full action.

Simulations allow us to imagine situations that are not yet available by means through which we base our actions. As we learned from Patricia Reed during a seminar that we organized with her in the summer of 2020: “The human capacity to conceptually unbind thought from the present (in both space and time) is where the relationship between care and risk can be articulated as a crucial dynamic for thinking planetary-dimensioned

social worlds.”<sup>7</sup> But how can we make those worlds of the ‘there and then’ intelligible in the ‘here and now’? Is it possible to reorient the metric of time through the predictive logic of algorithms?

These questions resonate with the initial edition of *Materia Abierta* in 2019. That edition addressed how, although the current power of computers allows the construction and distribution of innumerable simulations that are convenient for perceiving the world, these programmes respond to their own training logic. In the words of its curator



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Natalia Zuluaga: “The tightening feedback loop between media, knowledge, lived experience and the environment is not merely a concern for today. The future is trapped in an endless financialized exchange with the present; a loop that all but guarantees that the inequality, detention and violence enacted upon racialized and marginalized bodies will endure.”<sup>8</sup>

Parisi’s work, however, insists on the possibility of critical computation to generate epistemologies that go beyond universal techno-scientific certainties. Specifically,

she refers to the abductive logic of algorithms as a reason space that distinguishes itself from data analysis by generating new forms of logical complexity outside the “statistical regime of inductive capital.” This generates what Parisi calls, in reference to the ideas of Charles Sanders Peirce, a “meta-hypothetical” function capable of inferring speculative hypotheses about unknown phenomena. In other words, abductive automation offers explanations beyond a “linear sequence of given causes and effects.”<sup>9</sup>

Unlike the conventional prototype, the

<sup>6</sup> Nora N. Khan, “Seeing, Naming, Knowing,” *The Brooklyn Rail*, March 2019. [brooklynrail.org/2019/03/art/seeing-naming-knowing](https://brooklynrail.org/2019/03/art/seeing-naming-knowing).

<sup>7</sup> Patricia Reed, “Sobre mundos habitables y planetarios,” in the *Futuros posibles* programme hosted by Materia Abierta, Casa del Lago UNAM and Museo Tamayo, Seminar August 11, 13 and 15, 2020. [museotamayo.org/futuros-posibles-2/patricia-reed](https://museotamayo.org/futuros-posibles-2/patricia-reed).

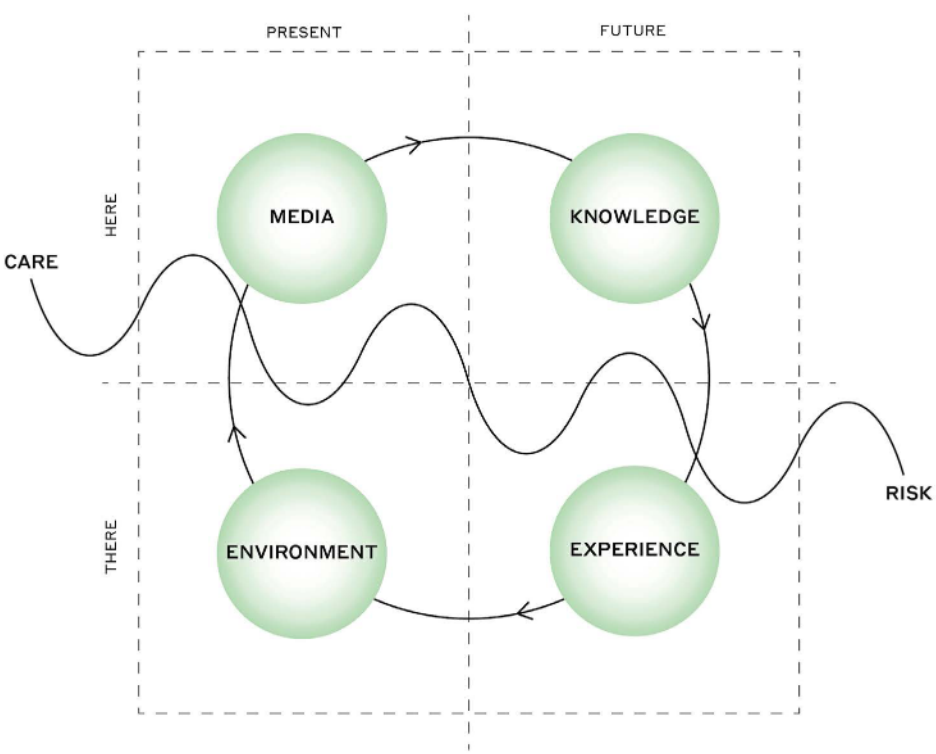
<sup>8</sup> Natalia Zuluaga, inaugural edition *Materia Abierta*, August 5–6, 2019. [materiaabierta.com](https://materiaabierta.com).

<sup>9</sup> Luciana Parisi, “Critical Computation: Digital Automata and General Artificial Thinking,” *Theory, Culture & Society* 36, no. 2 (2019): 89–121.

<sup>10</sup> Parisi, “Critical Computation” (see note 9).

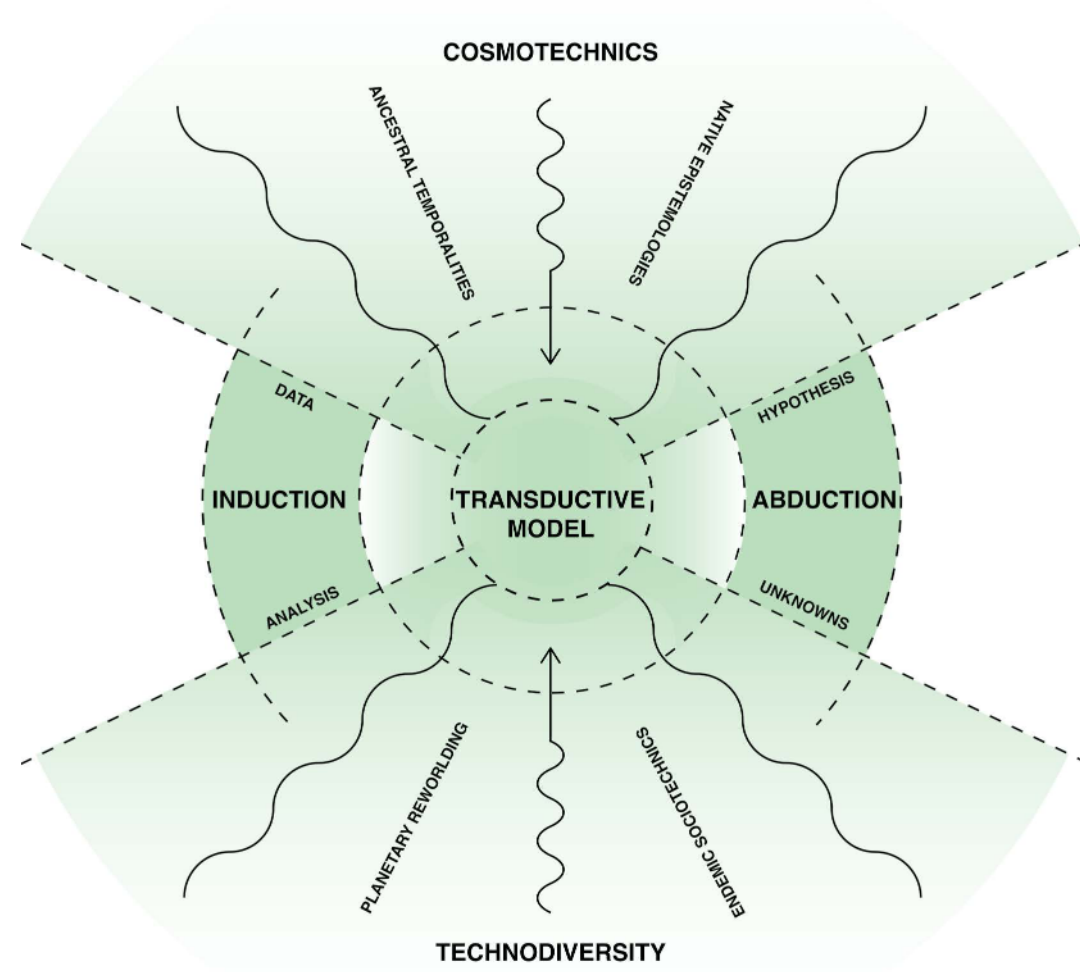
<sup>11</sup> Luciana Parisi and Ezekiel Dixon-Román, “Data Capitalism, Sociogenic Prediction, and Recursive Indeterminacies,” in *Data Publics* (Milton Park, Abingdon, Oxon; New York, NY: Routledge, 2020), 48–62.

<sup>12</sup> Parisi and Dixon-Román, “Data Capitalism” (see note 11).



recursive model is not a static representation of material possibilities. It is, moreover, incomplete in the first instance: in its abduction potential, it sustains a permanent disposition to change and has built within its internal logics a self-transforming factor that is beyond the characteristics from which it is designed. In fact, its operational rules arise from the automatic behaviour of the data. As Parisi points out, “machine learning is the inverse of programming: the question is not to deduce the output from a given algorithm, but rather to find the algorithm that produces this output.”<sup>10</sup>

The recursive temporality of computational systems reveals their incomplete state and therefore the systemic impossibility of modern techno-epistemic principles. In this sense, Parisi and Dixon-Román suggest that current computing not only reflects the normativity of knowledge production but also that by including indeterminate elements, the Promethean progress of recursive colonialism is weakened.<sup>11</sup> However, the rejection of a universal technological programme would require that algorithms take advantage of the gaps



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caused by recursion to become infected with a multiplicity of localized transversal cosmologies, which philosopher Yuk Hui calls cosmotechnics.

Predictive algorithms do not only work from retroactive analysis of existing data but instead incorporate incomplete information as part of their own learning process. In the words of Parisi and Dixon-Román: “The interaction between data sets, contexts, and algorithmic rules entails not a recursive learning, but a trans-ductive learning.”<sup>12</sup> It is in this sense that the deviation from the linear progress of modern knowledge requires a transformation of the technical systems from which knowledge is generated so that they include indeterminate possibilities at all their procedural levels.

The trans-ductive potential of these systems can serve as an unfinished, imprecise, indefinitely adaptable guide for our pedagogical project. However, when considering this, it is crucial to not lose sight of the way in which colonial capital evolves in conjunction with machines and with epistemological narratives around them. How to imagine, then, a learning model beyond the limits of reason? How to avoid reproducing the excluding logics of the institutionalization of knowledge? How to escape from cognitive capitalism? How to stop specifying the world under temporal metrics of empire? Is the recovery of critique outside of an epistemic quest? Do acts of refusal need to be symbolically represented? How to destabilize the

aesthetic relationship between the future and technology? How can we avoid reproducing extractivist logics in our theorization?

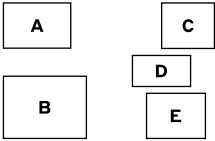
At a time when education is rapidly being rearranged, the value of educational institutions is being put to the test. The cost of keeping schools running is at odds with their concrete offerings, and the move to educate online exposes the institutional structures that seem better suited to protect academic markets than student needs. This is not just one more effect of the pandemic but of the progressive crisis of the privatization of knowledge and the procurement of false meritocratic systems. But what are the essential components of schools and what are their administrative surpluses? Is it possible to reimagine online learning and make our programmes more accessible? How to take advantage of virtual spaces while considering the mechanisms that benefit from digital overproductivity?

Materia Abierta is a small effort to address the need to develop new learning space as profound recalibrations of educational logics. As an epistemic and political space, the programme seeks to weave links between the worlds that have been made evident and those that are less visible or have been historically obscured. It is a call to ritualize critical socialization, awaken collective imagination and conjure up insurrectionary imaginaries in search of shared realities beyond the versions of the future from which it is necessary to escape. •





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**A** Public Lecture by  
Yásnaya Elena Aguilar  
Gil during Materia  
Abierta's 2019  
programme.

**B** Visit to El Cerro  
Gordo in Ecatepec,  
Mexico City with  
members of MACE  
(Museo Arte  
Contemporáneo  
Ecatepec).

**C** Performance  
resulting from Vaginal  
Davis's workshop during  
Materia Abierta's 2019  
programme.

**D** Still from  
Maximiliano Mamani's  
performance "El orden  
de las rosas," commis-  
sioned as part of  
Materia Abierta's 2021  
programme.

**E** Materia Abierta's  
participants at Calpulli  
Tecalco in San Pedro  
Atocpan, Milpa Alta.



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