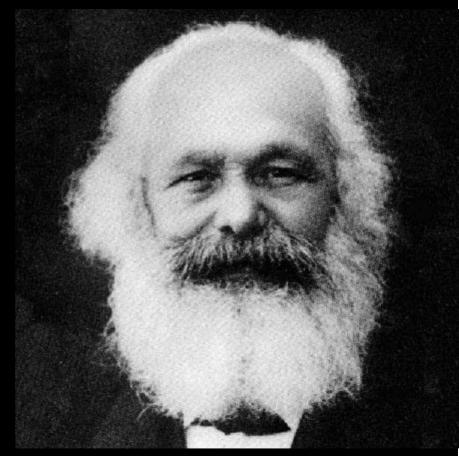
The World Ecology of Living Labor

Insights from Artificial Intelligence

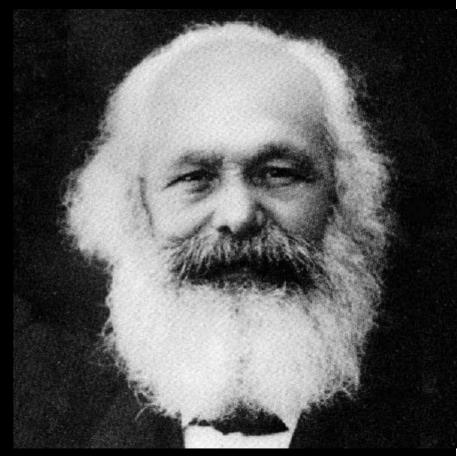
World-Ecology Research Network
Annual Conference
Indonesia
July 2023

One of Marx's most important insights was that the "articulation between living labour and dead labour is the condition upon which the capitalist system of production is maintained" (Ricardo Antunes).



Wikimedia Commons

Let's try to bring this idea up to date with world ecology by experimenting with the thesis that ...



Wikimedia Commons

What Marx called "living labor" is maybe better distinguished from what he called "dead labor" not by using his own terms of "vital energy", "will", "bodily subjectivity", "form-giving fire", "selfnegating capacity", "the capacity to refuse or resist", the "blood" on which the "vampire" of dead labour feeds to produce surplus – or the rest of the faintly archaic-sounding vocabulary Marx resorted to throughout Capital ...

... but rather by using the term

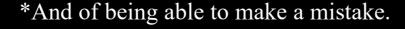
rational or intelligent action

What's that? For my purposes, it's action situated in what the eminent anti-Cartesian philosopher Wilfred Sellars called a "logical space of reasons."



International Sellars Colloquium

And what is a "space of reasons"? A space of "justifying and being able to justify what one says".* Any act of living labor is constituted by being surrounded by reasons whose socionatural evolution is extremely long in duration.





International Sellars Colloquium

Each of these reasons is in turn surrounded by other reasons of diverse but similar provenance. As noted by Donald Davidson, another anti-Cartesian follower of Ludwig Wittgenstein:

Christiaan Tonnis, CC BY-SA 2.0 https://creativecommons.org/licenses/by-sa/2.0



"To have even one thought — one belief or desire" you need to have a "very great many other thoughts and desires."

Thanks to today's lively debates about artificial intelligence, we now have beautiful new ways of using this anti-Cartesian conception both

(1) to distinguish between living and dead labor and

(2) to illuminate the world ecology of their relations.



Steve Jurvetson, CC BY 2.0 https://creativecommons.org/licenses/by/2.0

Rodney A. Brooks, legendary MIT roboticist, "Just Calm Down about GPT-4 Already"

"Suppose a person tells us that a particular photo is of people playing Frisbee in the park, then we naturally assume that they can answer questions like 'what is the shape of a Frisbee?', 'roughly how far can a person throw a Frisbee?', 'can a person eat a Frisbee?', 'roughly how many people play Frisbee at once?', 'can a 3 month old person play Frisbee?', 'is today's weather suitable for playing Frisbee?""



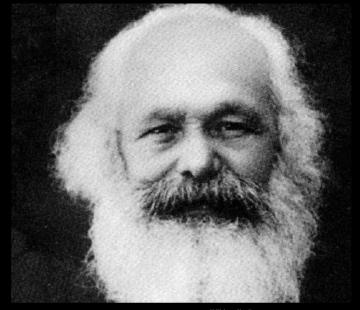
Steve Jurvetson, CC BY 2.0 https://creativecommons.org/licenses/by/2.0

Rodney A. Brooks, legendary MIT roboticist, "Just Calm Down about GPT-4 Already"

"Today's image labelling systems that routinely give correct labels, like 'people playing Frisbee in a park' to online photos, have no chance of answering those questions. Besides the fact that all they can do is label more images and can not answer questions at all, they have no idea what a person is, that parks are usually outside, that people have ages, that weather is anything more than how it makes a photo look, etc., etc."







Wikimedia Commons

In sum, for the present, AI remains a paradigm example of **dead labor**. Its virtuoso *performances* cannot by themselves create any of the capitalist value whose production requires what Brooks calls *competence* – plural, heterogeneous, ecological, general, long-evolved – which is possessed only by **living labor**.

Let's recap.

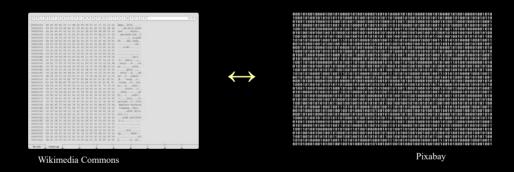
Here we have the very impressive dead labor of AI.



Ed Yourdon, CC BY-SA 2.0 https://creativecommons.org/licenses/by-sa/2.0> "People playing

→ Frisbee in a park"

(Or, more properly, the billions of, say, backpropagated Bayesian statistical operations using big data from past acts of living labor; fast processors; and lots of degradable thermodynamic energy to produce cool *predictions* about how a human might correlate one object of a binary pair with another.)





But to produce <u>capitalist</u> <u>value</u>, we need a *lot* more than this, namely ...

"Weather is some combination of rain, sun, wind, etc."

"Rain is not suitable weather for playing Frisbee"

"People have ages"

"A 3 month old baby is physically unable to play Frisbee"

"A Frisbee is shaped like a flying saucer"



Ed Yourdon, CC BY-SA 2.0 https://creativecommons.org/licenses/by-sa/2.0>

"Usually no more than 5 people play Frisbee at once"

"A person can throw a Frisbee maybe 50 meters" "People don't eat Frisbees"

"Parks are usually outside"

"Outside/inside boundaries have become historically significant for humans''

LABOR "People have ages" Lound ING LABOR "Weather is some combination of rain, physically unauc Frisbee" ر suitable weather Jaying Frisbee"



"People don't eat Frisbees"



people p...

Ed Yourdon, CC BY-SA 2.0 https://creativecommons.org/licenses/by-sa/2.0>

"Parks are usually outside"

Parks are usually outside"

Secome historical significant for https://doi.org/10.1000/10.1 secome historically humans"

This particular space of reasons happens to consist of networks of beliefs. But many other kinds of reasons are also possible, and many other spaces of reasons associated with many other kinds of living labor.

For example, the kind of living labor that consists of the "deliberative respecification of ends" – where just to continue carrying out instrumentalist capitalist thinking, you have to change your goals – tends to be characterized by the elaboration of causal, body-permeated reasoning about the dangerous places that certain goals could lead to.

Similarly, much artistic living labor can only take place in a "space of reasons" consisting of, *i. a.*, networks of *metaphors* generating new experiences that then assume the status of new goals whose realization new techniques may be required to facilitate.



Pascal Bernardon/Unsplash

"Not like a river: more like a path through a spiky 1

pine forest"

"A pine forest has a certain sharpness"

"Such paths may be rocky underfoot"

"Lean into the dissonance"



Pascal Bernardon/Unsplash

"Pine trees are pointy"

+

"More staccato throughout"

"Not like a river: more like a path through a spiky pine forest"

"A pine like a river: more like a path through a spiky"

"A pine like a river: "A pine l

"Pine trees are pointy"

+>

"M" .o
Jughout"



Pascal Bernardon/Unsplash

"A pine forest has a harpness"

"Such paths may rocky erfoot"

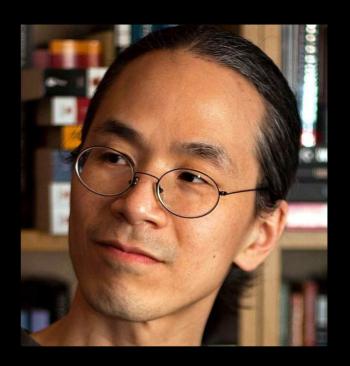
"Lea. the disson

• • •

A couple of basic aspects of the "spaces of reasons" that characterize living labor:

#1 Time

There is a temporal "stickiness" about spaces of reasons in that, bodily speaking, they have to be acquired at a certain pace, i.e.: They are "algorithmically incompressible."



Ted Chiang

Arturo Villarrubia, CC BY-SA 2.0 https://creativecommons.org/licenses/by-sa/2.0

#2 Ecology

Pace Descartes, spaces of reasons (and living labor) are of the earth.



Donald Davidson:

To find out if a being thinks (read: can perform living labor), you have to be able to see how it "interacts with the world" as well as how its responses to questions "depend on mutually observed events, changes, and objects ... there must be a three-way interaction among being, interrogator, and a shared world."

Spaces of reasons (and living labor power) are ecological in the same sense that the capabilities of maize, inculcated over millennia of coevolution with human beings, are ecological. They owe their existence to a long history of intra-action among the human and the more-than-human. They are aspects of sedimented socionatural evolution that capital cannot produce or reproduce by itself, but tends to parasitize, degrade and "max out" in a series of frontier moves.



International Sellars Colloquium

Dead labor can be energized and performed, but does not occur in that "logical space of reasons."



International Sellars Colloquium



Cumminscollege, CC BY-SA 3.0 https://creativecommons.org/licenses/by-sa/3.0

This is why AIs can't (yet) labor as scientists do on causality. They lack the specific kind of bodily, developmental background that is needed. (Instead, they just "make up stuff.")

Conservation biology, e.g., is a reasoned, physical, bodily conversation.

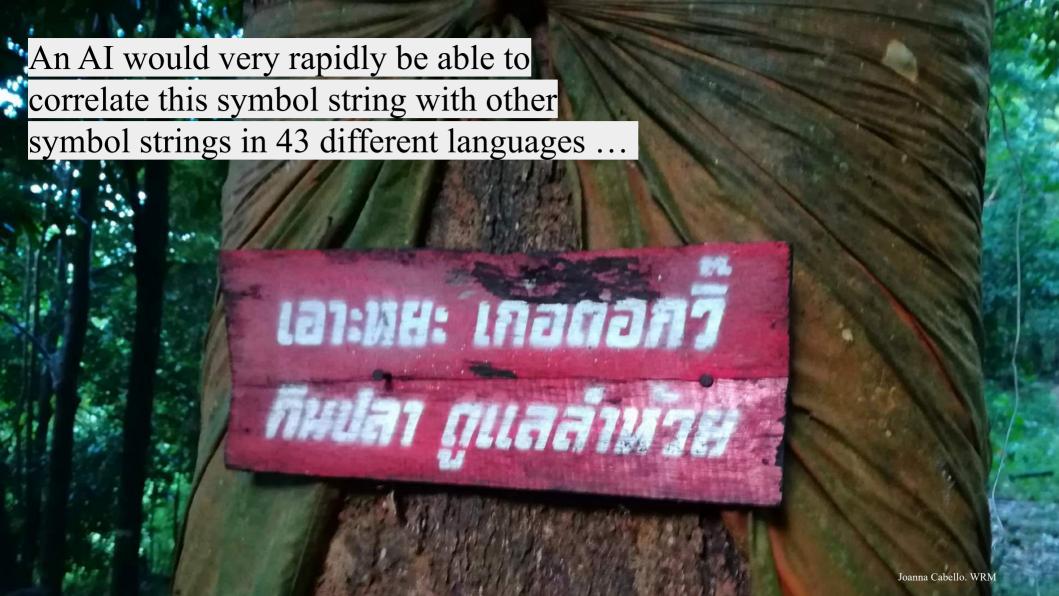


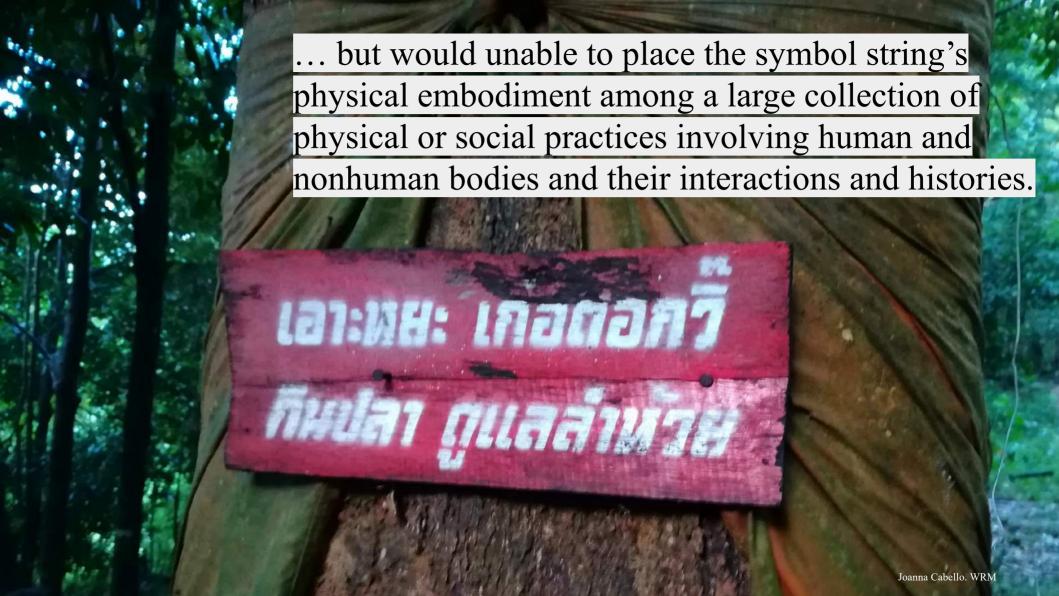
Gary Peeples, U.S. Fish and Wildlife Service, public domain, via Wikimedia Commons

As is swidden agriculture.













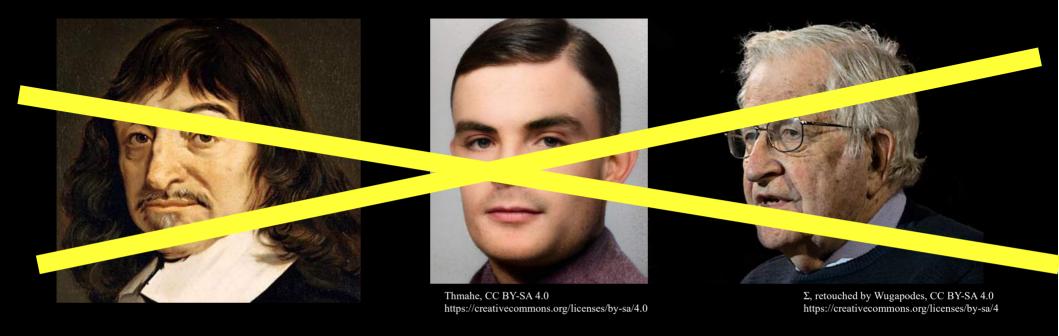


Thmahe, CC BY-SA 4.0 https://creativecommons.org/licenses/by-sa/4.0



Σ, retouched by Wugapodes, CC BY-SA 4.0 https://creativecommons.org/licenses/by-sa/4

Here I am arguing against a whole *non*-ecological Cartesian tradition of understanding labor power carried on by, say, Alan Turing or Noam Chomsky, with their view of machine-like *recursion* as capable of providing the adaptibility needed for capital accumulation (but that Marx and I associate instead with living labor).



Here I am arguing against a whole *non*-ecological Cartesian tradition of understanding labor power carried on by, say, Alan Turing or Noam Chomsky, with their view of machine-like *recursion* as capable of providing the adaptibility needed for capital accumulation (but that Marx and I associate instead with living labor).

Turing's famous Test, for example, assumed a "fairly sharp line between the physical and the intellectual capacities of man [sic]." But as Davidson observes, the reality is that "there is no such line."



Thmahe, CC BY-SA 4.0 https://creativecommons.org/licenses/by-sa/4.0

So while, as in the 19th century, dead labor's combination of speed, mass production, conceptual impoverishment and regimentation of human activity is key to industrial/digital capitalism ...



... it will continue to be also a limitation on capital, and the living/dead labor contradiction a root of ecological/labor crisis.

