Who owns the socking frame?

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SEMT, U Bristol

Henrietta Lacks



photo from Wikipedia

Florence Owens Thompson



photo from anywhere on the internet

Modified National Institute of Standards & Technology dataset

Three questions

- * the existential: OMG!
- * the pragmatic: how can it help me?
- * the societal: how can we make sure it helps all of us?

The existential

I want to go back to our earlier discussion of the loss we feel when a writer dies; because of the strength of their voice in animating their works, they feel alive to us and so when they die we feel a bereavement which isn't really appropriate for the loss of someone we haven't met. I certainly felt that with the death of Angela Carter years ago and more recently, W.G. Sebald and Javier Marías. Can you write a haiku about that?

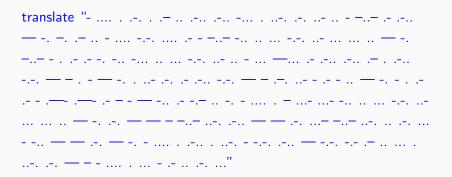
In worlds formed by ink, Their voices forever dwell, Writers, gone but felt.

by chat-GPT

De Revolutionibus Orbium Coelestium

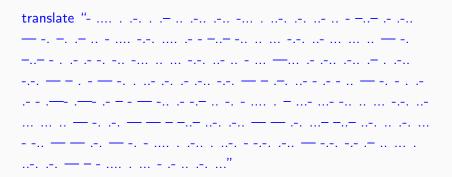
beyond the limitations of any imaginable mechanism

The rate of progress



The translated text from Morse code is: "there will be four burgers, aalong with cheezus crust. tea and biscuit, alel wake cheesus crust. tea and badass bikes... aall we're tough one.... cowabunga! in the morning, roooz... floor zooo orr... falooor dorkwizard... sea air..."

The rate of progress



The text you've provided is in Morse code. Here's the translation: "There will be fruit, along with chat, discussion, tea, and biscuits... all welcome to neural computation tea at 11 am today in the MVB discussion room, floor 3, first door on the left clockwise from the stairs."

The practical

The History of every major Galactic Civilization tends to pass through three distinct and recognizable phases, those of Survival, Inquiry and Sophistication, otherwise known as the How, Why, and Where phases. For instance, the first phase is characterized by the question 'How can we eat?' the second by the question 'Why do we eat?' and the third by the question 'Where shall we have lunch?

I would like to make an African style peanut stew but include rhubarb?

The practical

rewrite this so the data is in yyyy-mm-dd format

```
23/11/2023 Andrew
30/11/2023 Priyanka
07/12/2023 Oleg
14/12/2023 Individual groups
end of year hiatus
11/01/2023 Jake
18/01/2024 James McA
25/01/2024 Individual groups
01/02/2024 Kimberley
```

The practical

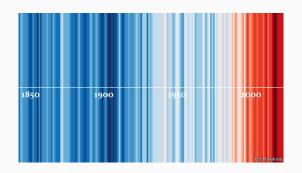
I want a julia function to convert a vector of zeros and one which represents an integer to the corresponding integer.

The rising tide

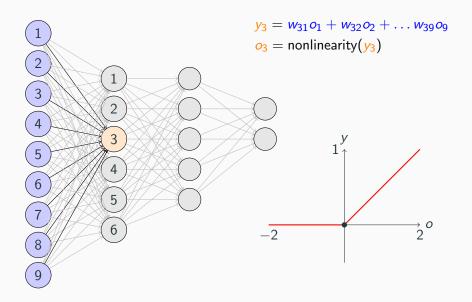


William Hogarth's Gin Alley

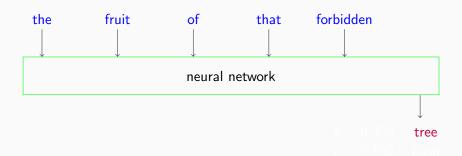
The commons grows



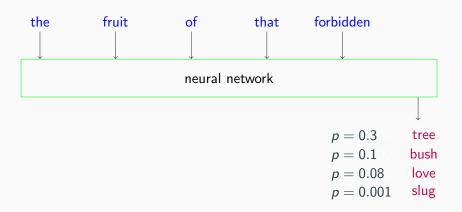
The Economist



Language



Probabilities



Objective function

$$E = [1 - p(\mathsf{tree})] + p(\mathsf{bush}) + p(\mathsf{love}) + p(\mathsf{slug}) + \dots$$

Stochastic gradient descent

$$\delta w_{ij} = \frac{\partial E}{\partial w_{ij}}$$

Calculus is a shared resource



image from Wikipedia

Cuckoo clocks



The Massacre at Drogheda

What do we want?

- Machine learning is important and surprising
- * It is a productivity miracle
- * Don't fear the machines, fear the machine makers

You're the measure of my dreams
The measure of my dreams