

Life Long Learning

(the right things)

Bert Hubert / bert@hubertnet.nl

Fourth part of NLNOG work Trilogy

1. Escape from the data center, or, how can it be that my stupid manager makes so much more money than I do & has a better life
2. How do I get a better job?
3. Business for geeks: should I even have a job?
4. **Life long learning - the right things**

Your choices of new/old technologies/fields almost ENTIRELY define your career: far too important to leave to chance!



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FOX-IT
FOR A MORE SECURE SOCIETY



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[nature](#) > [scientific data](#) > [data descriptors](#) > article

Data Descriptor | [Open access](#) | Published: 22 March 2022

SkewDB, a comprehensive database of GC and 10 other skews for over 30,000 chromosomes and plasmids

[Bert Hubert](#) ✉

[Scientific Data](#) **9**, Article number: 92 (2022) | [Cite this article](#)

3567 Accesses | **8** Citations | **4** Altmetric | [Metrics](#)

Abstract

GC skew denotes the relative excess of G nucleotides over C nucleotides on the leading versus the lagging replication strand of eubacteria. While the effect is small, typically around 2.5%, it is robust and pervasive. GC skew and the analogous TA skew are a localized deviation from Chargaff's second parity rule, which states that G and C, and T and A occur with (mostly) equal frequency even within a strand. Different bacterial phyla show different kinds of skew, and differing relations between TA and GC skew. This article introduces an open access database (<https://skewdb.org>) of GC and 10 other skews for over 30,000 chromosomes and plasmids. Further details like codon bias, strand bias, strand lengths and taxonomic data are also included. The SkewDB can be used to generate or verify hypotheses. Since the origins of both the second parity rule and GC skew itself are not yet satisfactorily explained, such a database may enhance our understanding of prokaryotic DNA.

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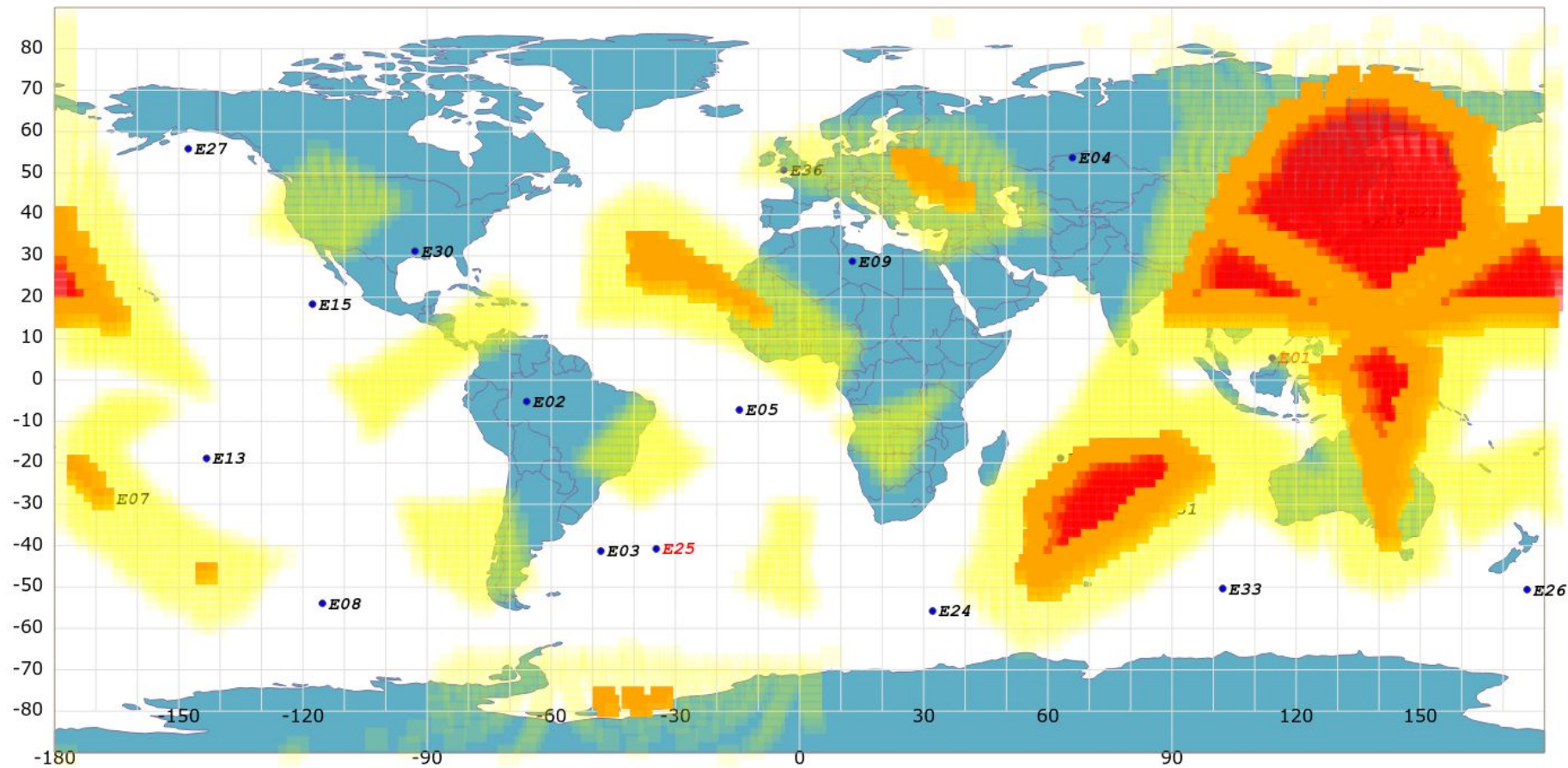
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Also see: berthub.eu

A Spherical Cow Model of Global Warming (With Data and Code)

📅 Sep 25 2023

Before we start, I'd like to thank ESA's [Mark McCaughrean](#) who helped kick off this article by referring me to [two key articles that lay out, in scientific terms, how global warming really works.](#)

Here you can pick your favorite temperature unit: C ☒ F (Test temperature: -18°C (255K))

Feel free to skip this wordy intro and head straight to the model, or even to the summary at the end of this post!

I must also acknowledge [this thread](#) by Markus Deserno which opened my eyes in 2022 that global warming is more complicated than almost everyone thinks. And it turns out it is even more complicated than can fit in a thread.

This work is in some sense data & code driven tribute act to [dr Sabine Hossenfelder's 20 minute video "I Misunderstood the Greenhouse Effect. Here's How It Works"](#). And like Sabine's video, much of what you'll read below hails from the grand book ["Principles of Planetary Climate"](#) by [Raymond T. Pierrehumbert](#). At the very end this page you'll find a large list of other sources that I found useful.

Er zijn te weinig nerdfluisteraars bij bedrijven en overheden, vindt ict-expert Bert Hubert

Bert Hubert probeert de kloof tussen techneuten en niet-techneuten te dichten. Zo ziet hij met lede ogen aan dat ict-nerds zelden willen werken bij de overheid, en als ze het doen, dan houden ze het vaak niet lang uit. Zijn oplossing: de nerdfluisteraar.

Kustaw Bessems 3 juni 2022, 14:51



Nederland onthoudt zich van stem over omstreden EU-wet voor chatcontrole

Het Nederlandse kabinet zal zich onthouden van stemming over het omstreden EU-voorstel dat berichtendiensten zou verplichten berichten te scannen op kindermisbruikmateriaal. Dat schrijft justitieminister David van Weel in een brief aan de Tweede Kamer.

Het Hongaarse compromisvoorstel, dat volgende week door EU-ministers van Justitie wordt besproken, zou diensten als WhatsApp en Signal dwingen software te implementeren die bekende afbeeldingen van kindermisbruik detecteert. Dat zou gebeuren door alle foto's die gebruikers versturen te scannen. Hoewel Nederland de urgentie van de bestrijding van kindermisbruikmateriaal [zegt te erkennen](#), uit het kabinet zorgen over de impact op privacy en het telecommunicatiegeheim. Het kabinet stemt niet expliciet tegen de wet, maar onthoudt zich van stemming.

Privacyexperts en techbedrijven noemen het zogenoemde 'chatcontrol'-voorstel een schending van de privacy van burgers en een bedreiging voor de versleuteling van online communicatie. Daarnaast bestaan er zorgen over de technologie achter het scansysteem, met name vanwege het risico op een hoog aantal valspositieve resultaten. Ook Van Weel stelt dat er onvoldoende duidelijkheid is over de gevolgen van de voorgestelde maatregelen.



English

Shaping Europe's digital future

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EU Cyber Resilience Act

New EU cybersecurity rules ensure safer hardware and software.



Door **Andrei Stiru**
Redacteur
[Feedback](#)

01-10-2024 • 15:01




Submitter: [Anonymoussaurus](#)

And also 35 years of
C(++)

(and terrible JavaScript & Python)

WHY BLOAT IS STILL SOFTWARE'S BIGGEST VULNERABILITY

A 2024 plea for lean software

BY [BERT HUBERT](#) | 08 FEB 2024 | 10 MIN READ | 



“The way we build and ship software these days is mostly ridiculous, leading to apps using millions of lines of code to open a garage door, and other simple programs importing 1,600 external code libraries—dependencies—of unknown provenance.”



Life long learning:
technology

MapReduce!

UML!

Second Life / Metaverse!

Blockchain! Bitcoin!

AGILE!

SDN

5G self driving cars!

Digital Transformation!

DevOps! Kubernetes!

Quantum Computing!

AI!

Do I really have to?

Is AI good or bad?

Is AI useful or useless?

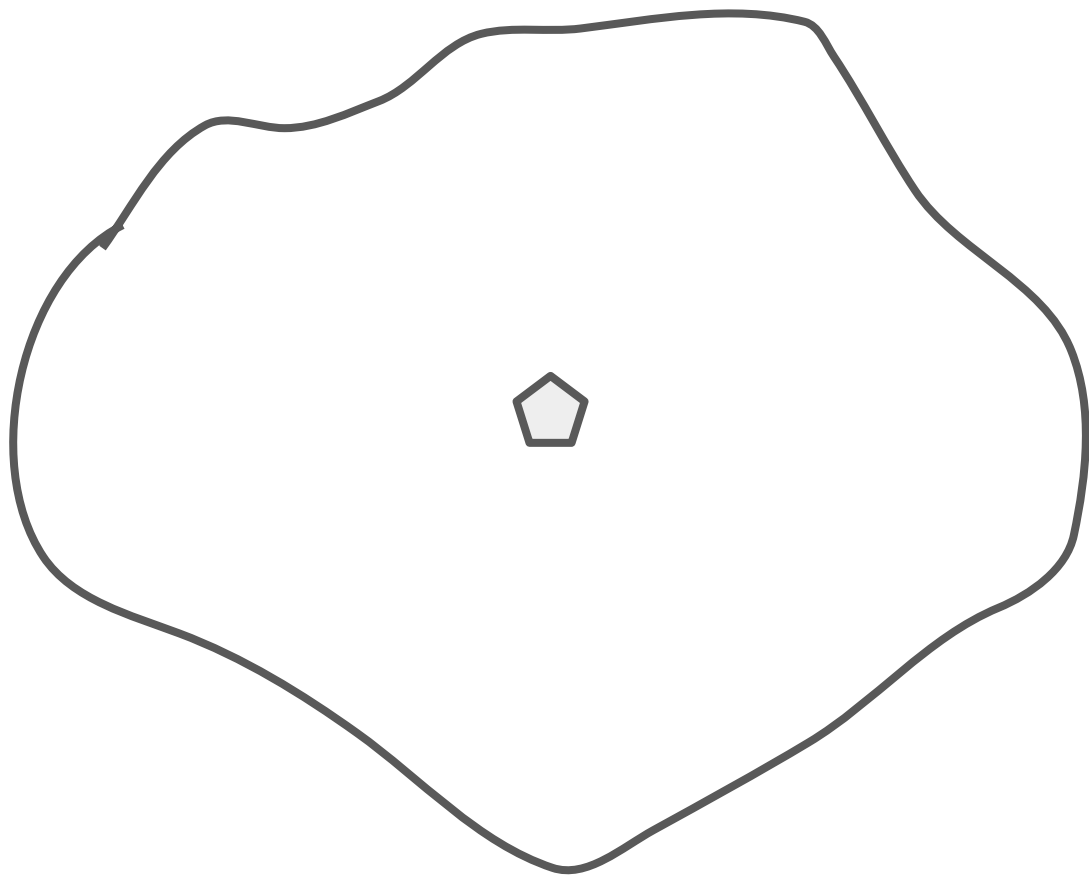
Is ChatGPT intelligent?

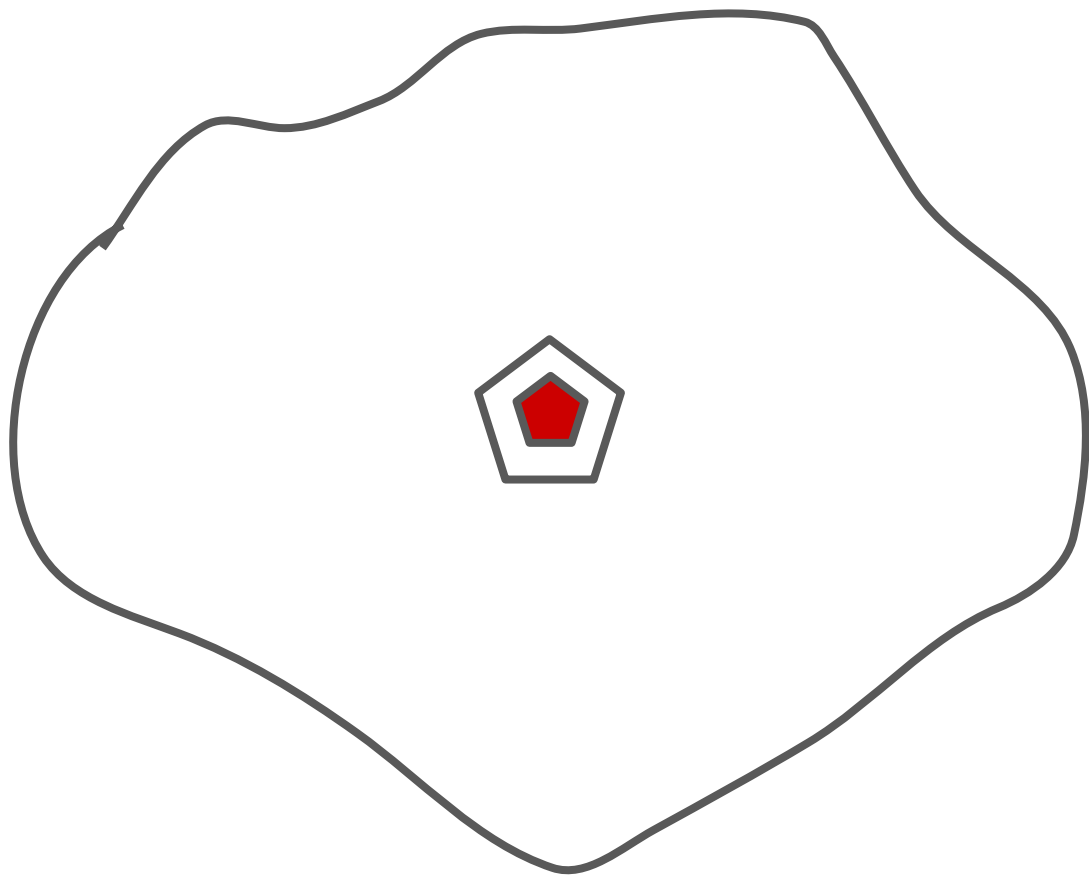
Am I more intelligent than ChatGPT?

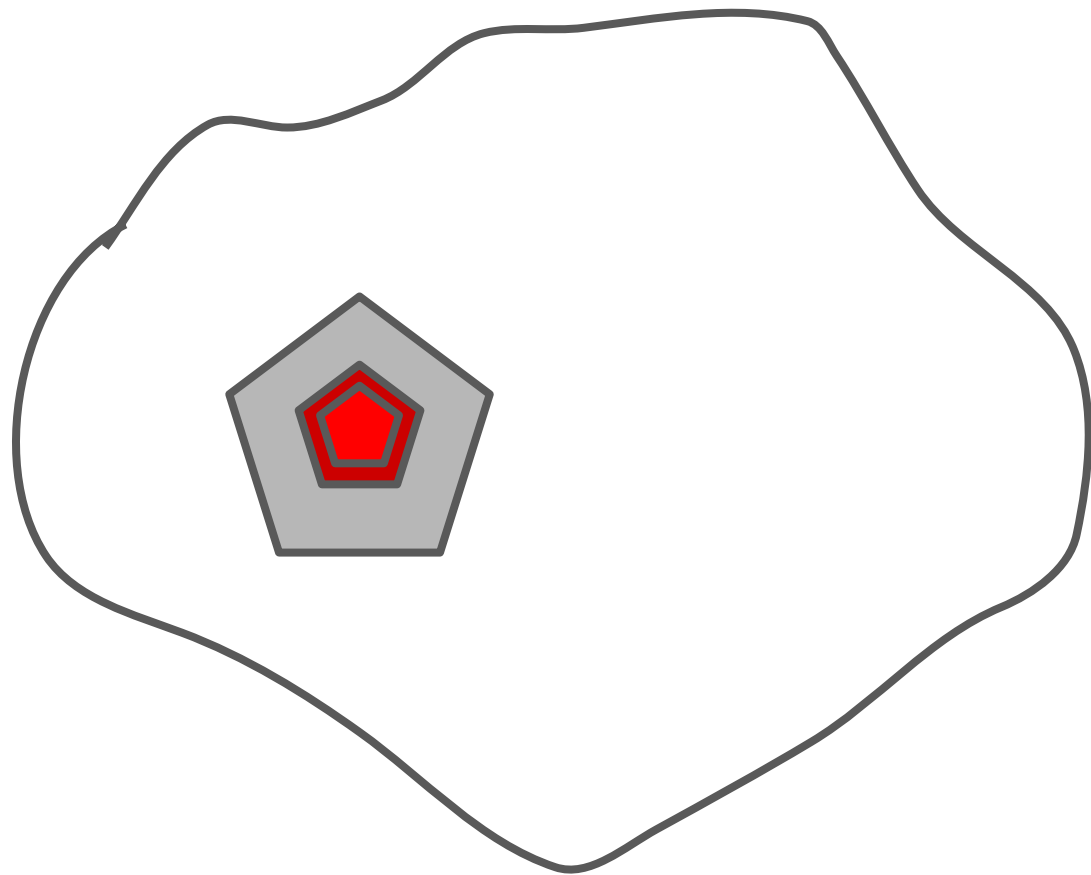
Will AI steal my job?

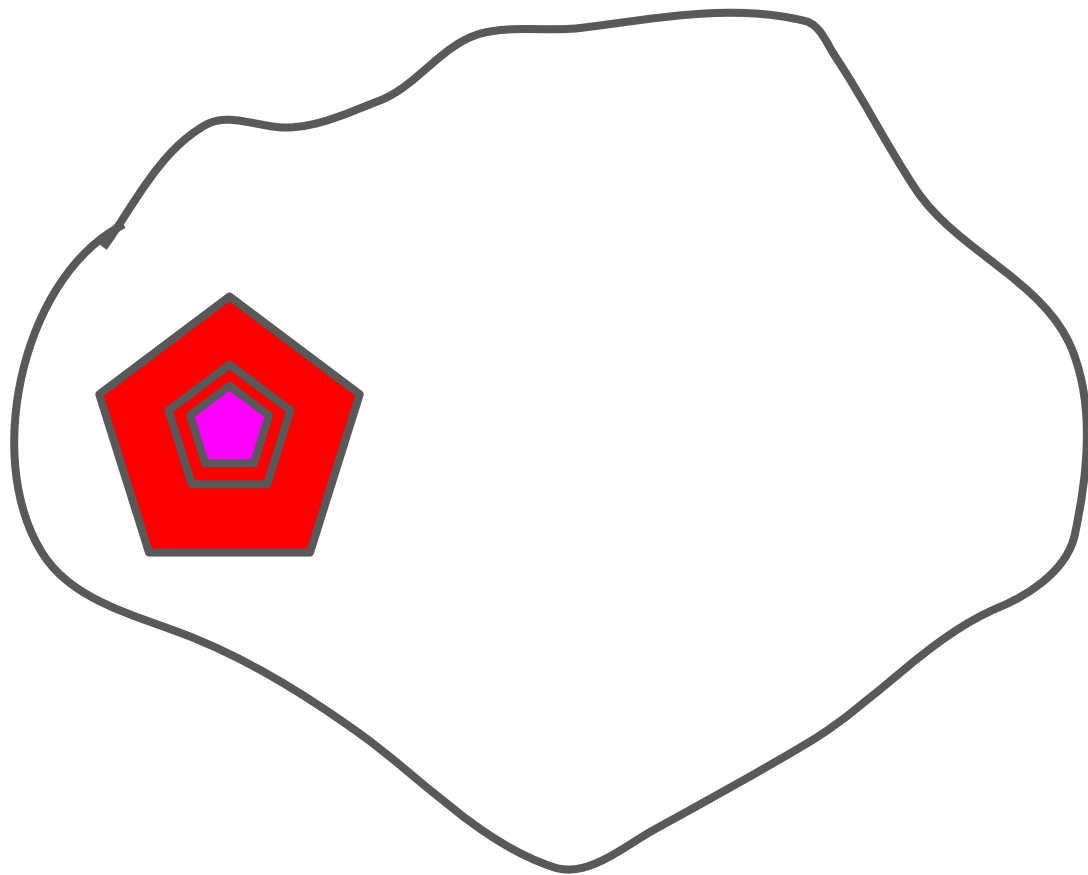
Is AI a passing fad?

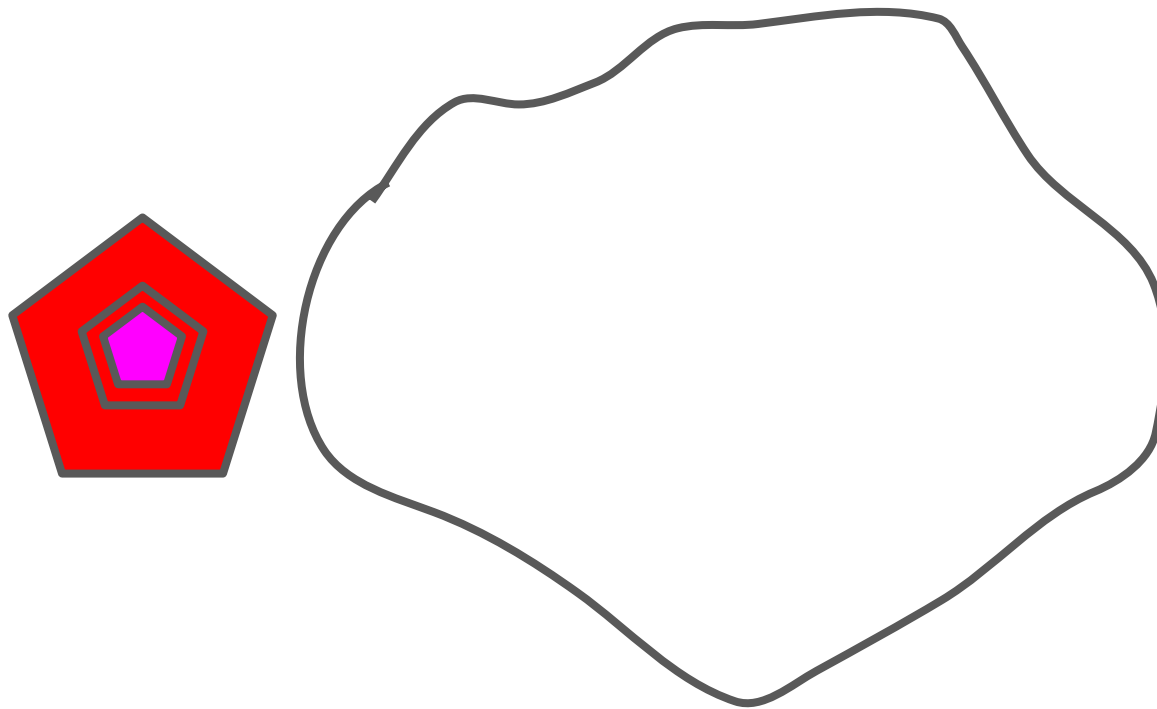
Is AI dangerous?







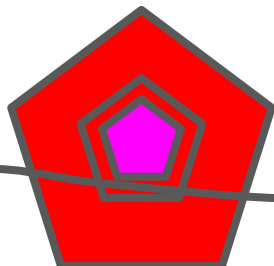




Well, shit



Rijksoverheid



We can't take all new
things seriously.

But we can't ignore all
of them either

“One can never read too little of bad, or too much of good books: bad books are intellectual poison; they destroy the mind.

In order to read what is good one must make it a condition **never to read what is bad**; for life is short, and both **time and strength limited.**” – Schopenhauer (1788-1860)



Bitcoin / Blockchain



Deep Learning

BERT (language model)

2018

[Article](#) [Talk](#)

From Wikipedia, the free encyclopedia

Bidirectional Encoder Representations from Transformers (BERT) is a [language model](#) introduced in October 2018 by researchers at [Google](#).^{[1][2]} It learned by [self-supervised learning](#) to represent text as a sequence of vectors. It had the [transformer encoder](#) architecture. It was notable for its dramatic improvement over previous state of the art models, and as an early example of [large language model](#). As of 2020, BERT was a ubiquitous baseline in [Natural Language Processing](#) (NLP) experiments.^[3]

BERT is trained by masked token prediction and next sentence prediction. As a result of this training process, BERT learns contextual, [latent representations](#) of tokens in their context, similar to [ELMo](#) and [GPT-2](#).^[4] It found applications for many many natural language processing tasks, such as [coreference resolution](#) and [polysemy](#) resolution.^[5] It is an evolutionary step over [ELMo](#), and spawned the study of "BERTology", which attempts to interpret what is learned by BERT.^[3]

2020-2022



Part of the team's puzzlement comes from the fact that most of the technology inside ChatGPT isn't new. ChatGPT is a fine-tuned version of GPT-3.5, a family of large language models that OpenAI released months before the chatbot. GPT-3.5 is itself an updated version of [GPT-3](#), which appeared in 2020.

When OpenAI launched ChatGPT, with zero fanfare, in late **November 2022**, the [San Francisco-based artificial-intelligence company](#) had few expectations. Certainly, nobody inside OpenAI was prepared for a [viral mega-hit](#). The firm has been scrambling to catch up—and capitalize on its success—ever since.

It was viewed in-house as a “research preview,” says Sandhini Agarwal, who works on policy at OpenAI: a tease of a more polished version of a [two-year-old technology](#) and, more important, an attempt to iron out some of its flaws by collecting feedback from the public. “We didn’t want to oversell it as a big fundamental advance,” says Liam Fedus, a scientist at OpenAI who worked on ChatGPT.

hello deep Learning
d d ddd d d dd d d e d e e e d

Welcome
d d d d d e d

a b c d e f g h i j k l m n o p q r s t u
d d d d d d e d d d d d d d d d e d d d d

v w x y z
d d d d d

“I've come up with a set of rules that describe our reactions to technologies:

1. Anything that is in the world **when you're born** is normal and ordinary and is just a natural part of the way the world works.

2. Anything that's invented between when you're **fifteen and thirty-five** is new and exciting and revolutionary and you can probably get a career in it.

3. **Anything invented after you're thirty-five is against the natural order of things.**”

— *Douglas Adams*, *The Salmon of Doubt: Hitchhiking the Galaxy One Last Time* (~**2002**)

"There is no reason anyone would want a computer in their home" - Ken Olsen, president and founder of Digital Equipment Corporation, 1977.

Internet 'may be just a passing fad as millions give up on it'

THE Internet may be only a passing fad for many users, according to a report.

Researchers found that millions were turning their back on the

By **James Chapman**
Science Correspondent

Woolgar, director of the society, said: "We are often presented with a picture of burgeoning Internet use, but

Net loss: Two million Britons have logged off the Internet



A winner of the Nobel Prize in Economics, Paul Krugman wrote in **1998**:

“The growth of the Internet will slow drastically, as the flaw in ‘Metcalfe’s law’—which states that the number of potential connections in a network is proportional to the square of the number of participants—becomes apparent: **most people have nothing to say to each other!** By **2005** or so, it will become clear that the Internet’s impact on the economy has been **no greater than the fax machine’s.**”

Things have changed,
however. Many
directors/managers
want to get the new
and shiny **right now.**

I THINK WE SHOULD
BUILD AN SQL
DATABASE.

UH-OH

DOES HE UNDERSTAND
WHAT HE SAID OR
IS IT SOMETHING
HE SAW IN A TRADE
MAGAZINE AD?

WHAT COLOR DO YOU
WANT THAT DATABASE?

I THINK
MAUVE HAS
THE MOST
RAM.

E-mail: SCOTTADAMS@AOL.COM

5 Adams

1/1/17 © 1995 United Feature Syndicate, Inc.(NYC)

Stop chasing the shiny, new thing



Simon Freakley

Chairman and Chief Executive Officer at AlixPartners

Published Mar 5, 2024

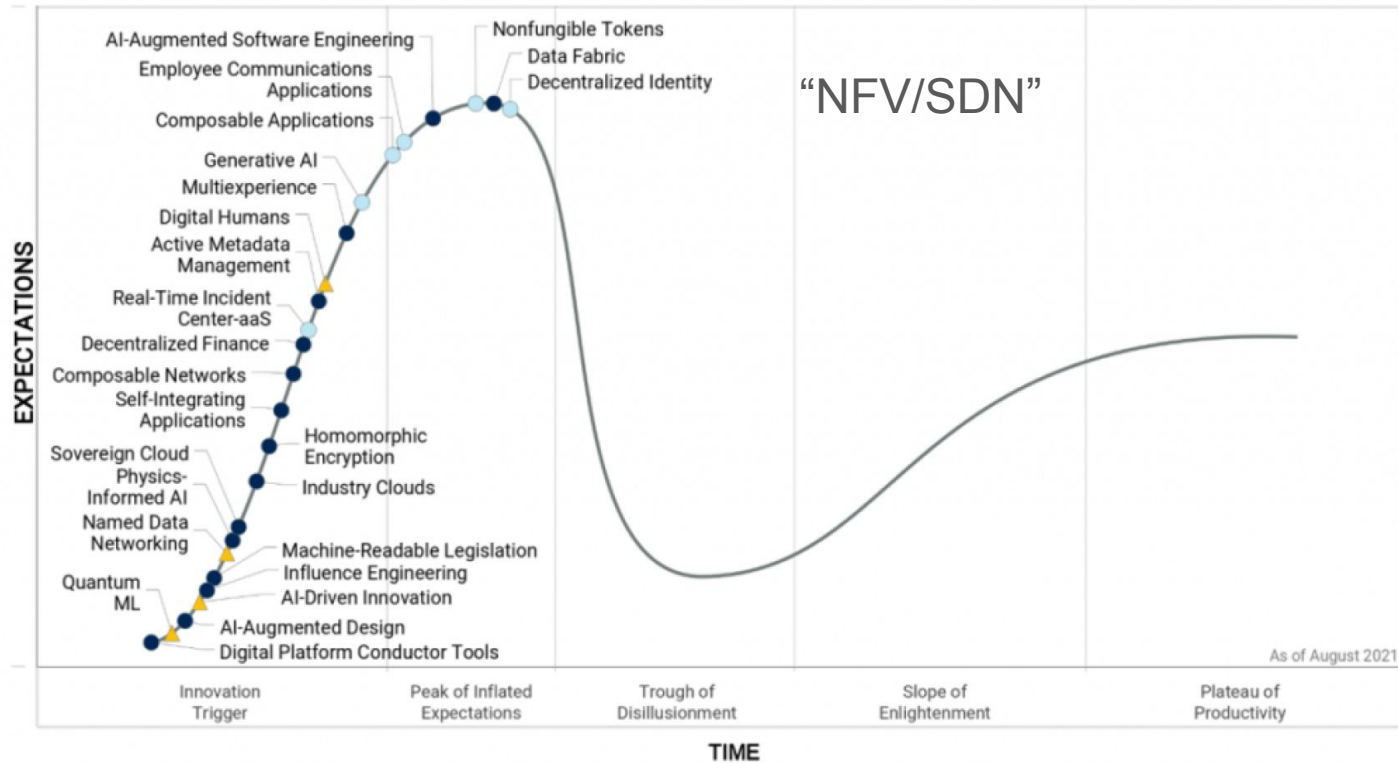
+ Follow

Part two of Simon Freakley's *Leadership on a tightrope* series

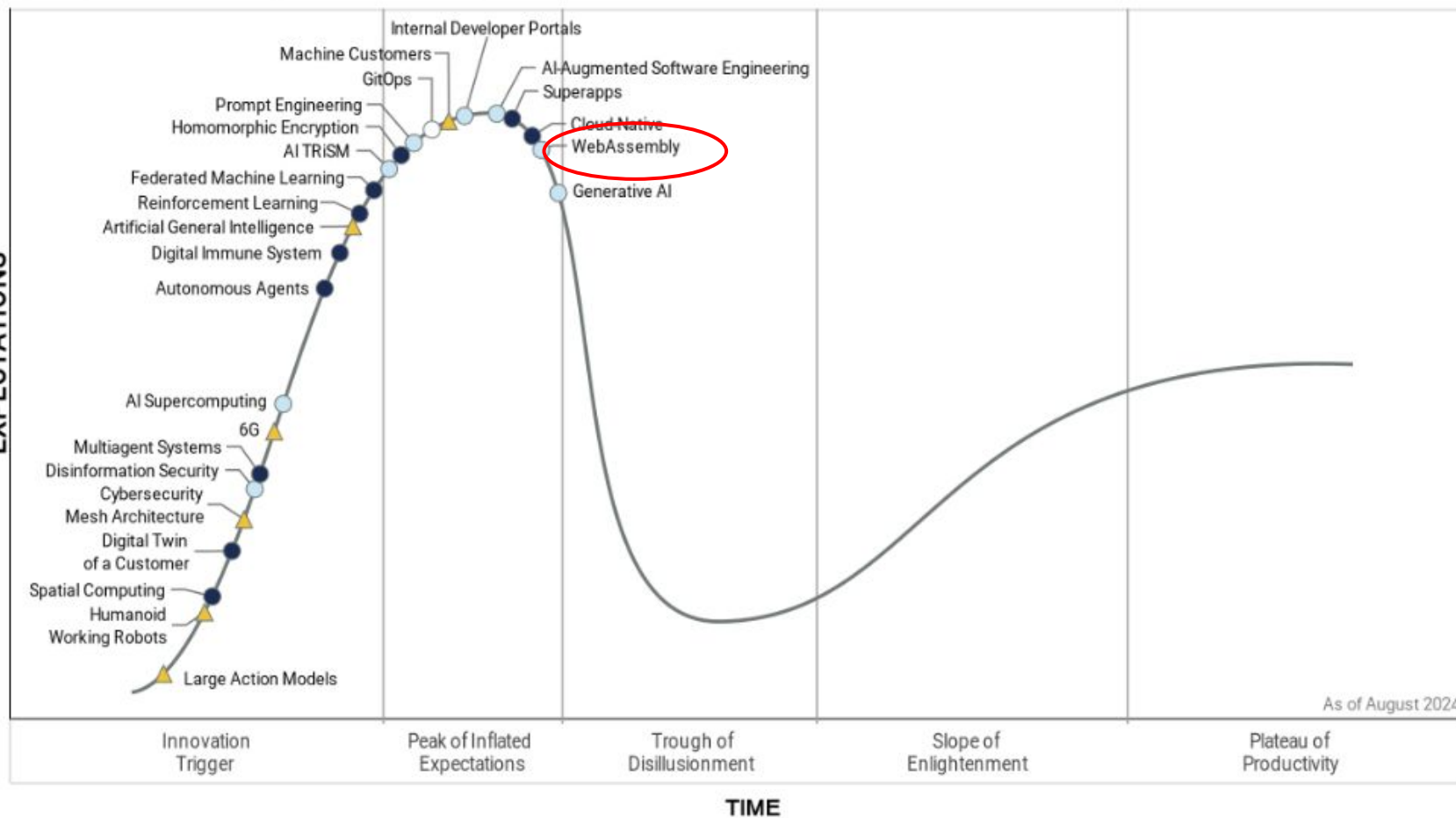
CEOs suffer from “FOMO” as much as the next person but allowing this to dictate your digital investments (or any investment, for that matter) is a sure recipe for pouring good money after bad.

These days, I don't speak to many CEOs who are focused on their crypto or blockchain strategy, or even, frankly, their future in the metaverse. All of today's debate centers around generative AI. Given the potential implications of AI and machine learning, broadly, such a focus is warranted.

Hype Cycle for Emerging Technologies, 2021



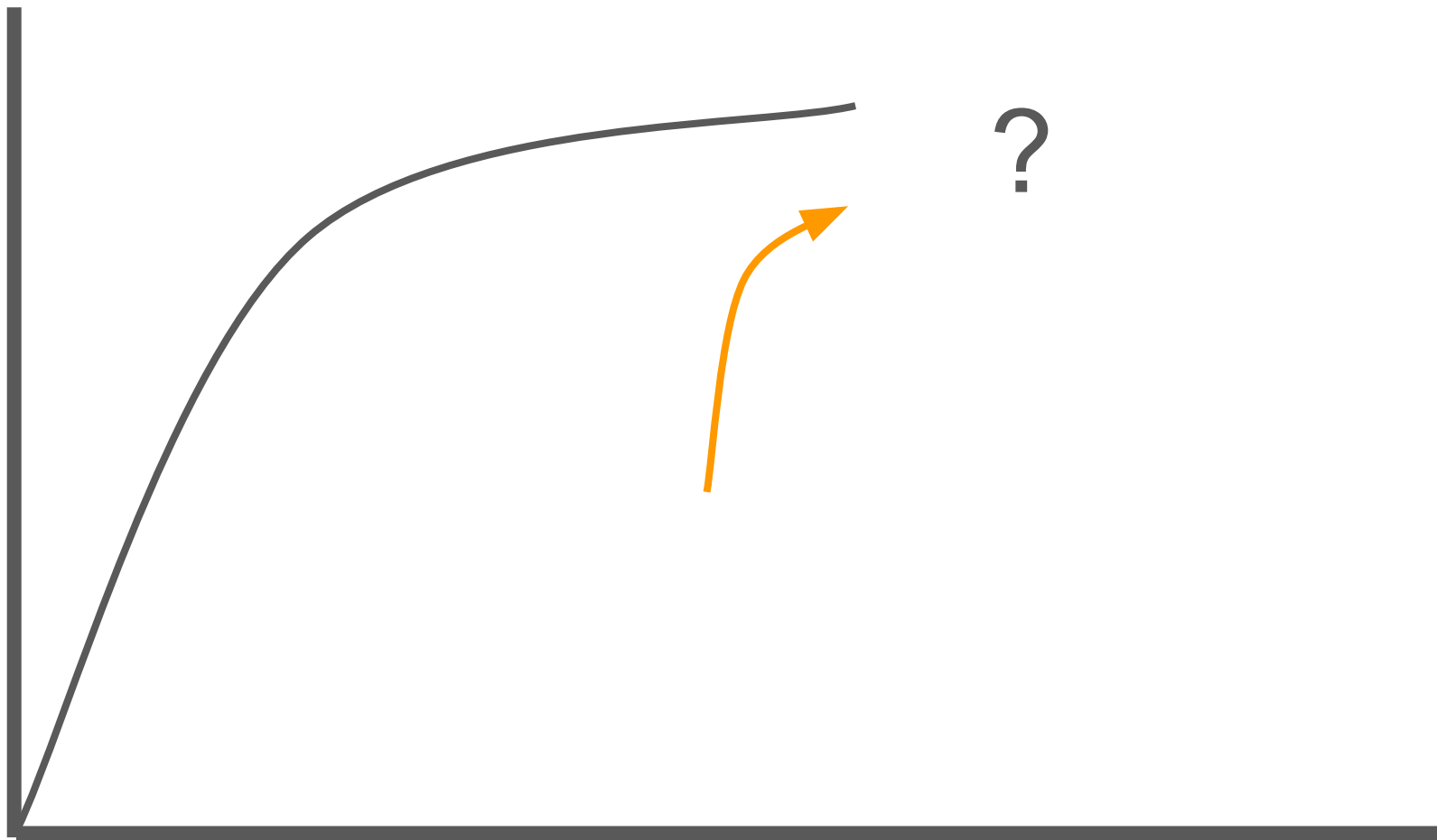
EXPECTATIONS

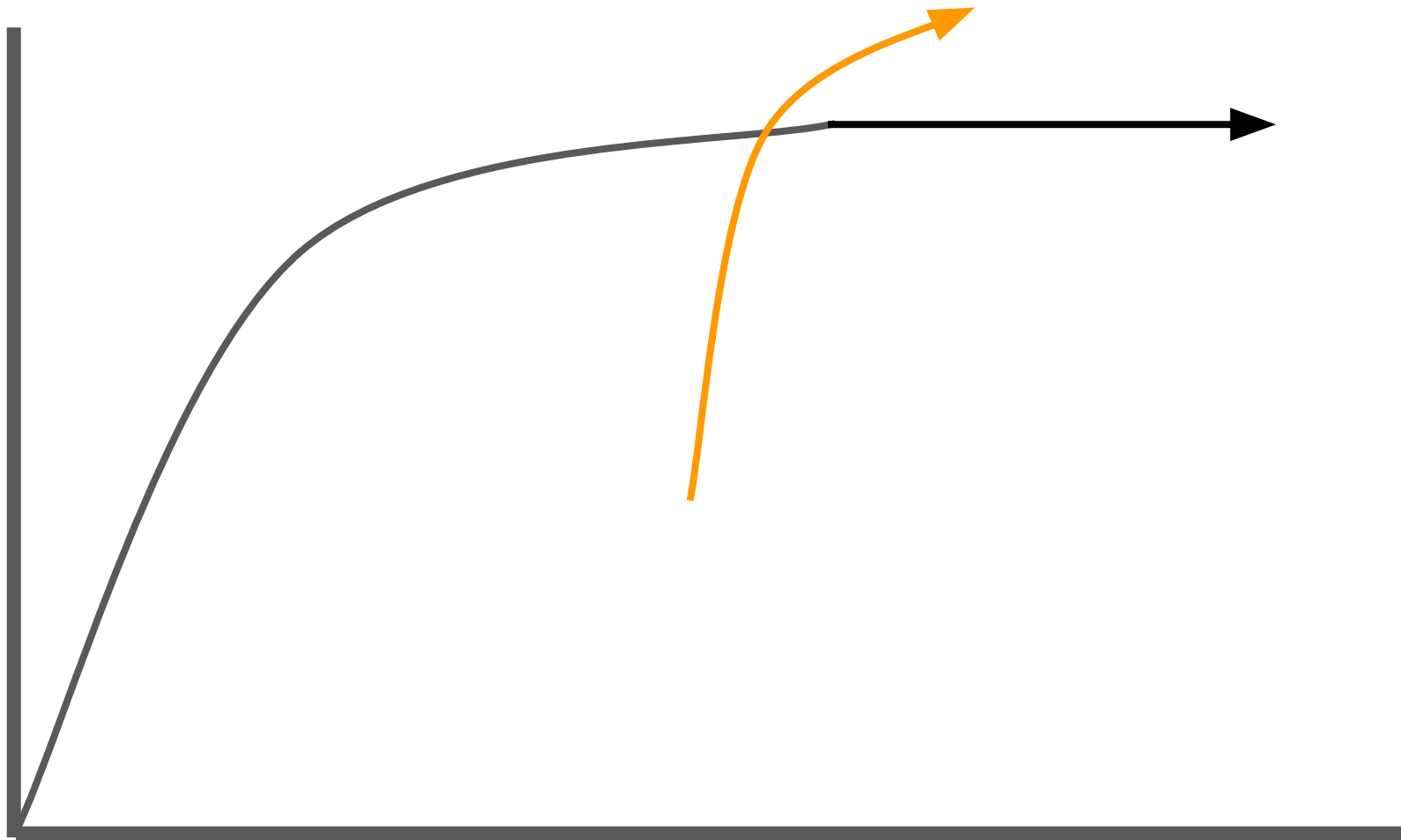


Plateau will be reached: ○ <2 yrs. ● 2-5 yrs. ● 5-10 yrs. ▲ >10 yrs. ✗ Obsolete before plateau

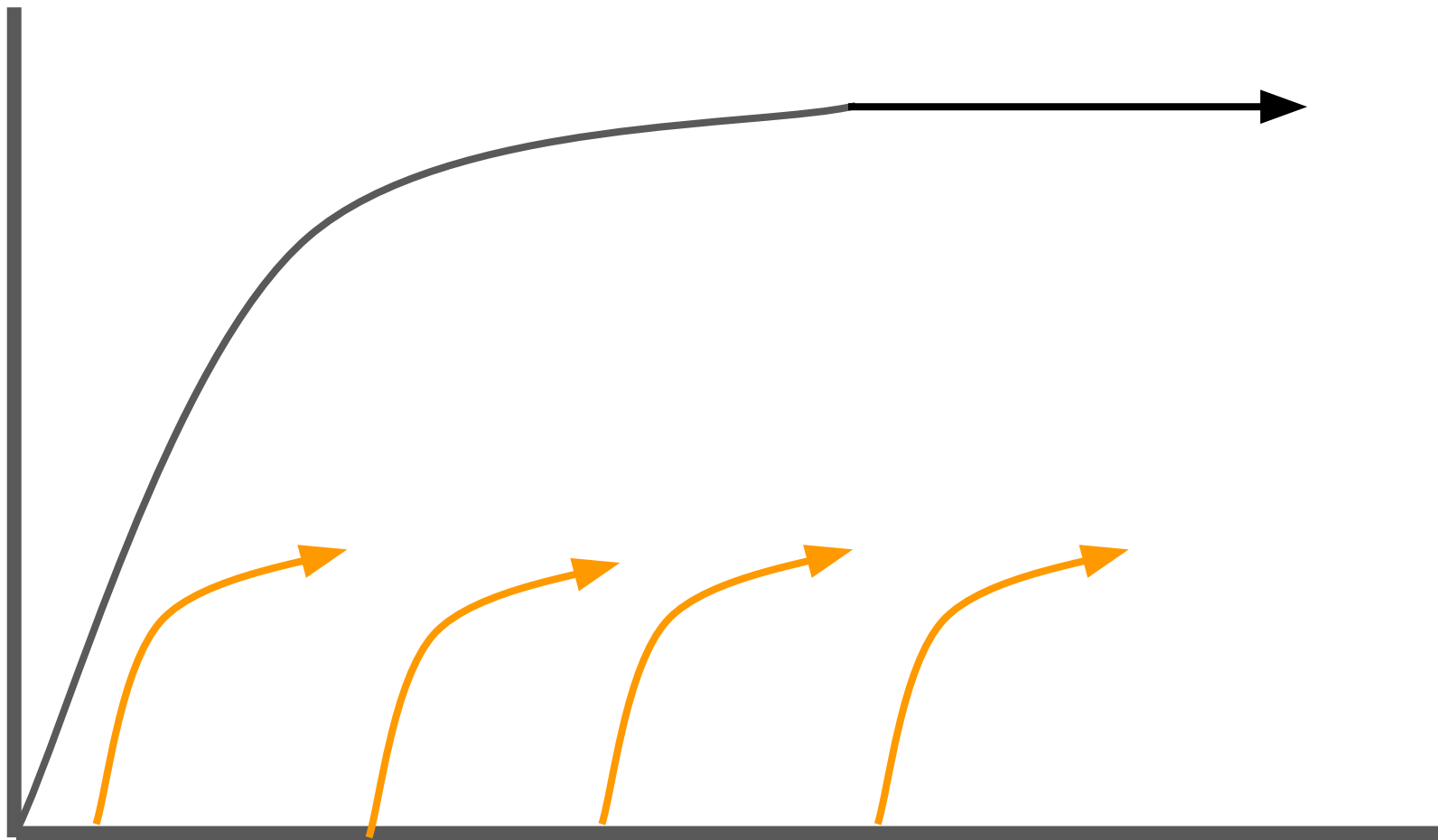
Hypes have huge
influence on
technology. **Which
isn't helpful.**

The risk is that you
(**subconsciously**) decide that
YOUR favorite technologies are
best, and that all new things
from now on are **pants**.









MapReduce!

Rust

AI !!!!!

UML!

Infrastructure as Code

Azure

Second Life / Metaverse!

AWS

Alops

Blockchain! Bitcoin!

Platform Engineering

AGILE!

AI!

GCP

Cloud Native

Big Data!

Docker

**Low/No
Code**

5G self driving cars & remote surgery!

Data Dog

Digital Transformation!

AI!

DevOps! Kubernetes!

Edge
computing

OpenAI

Quantum Computing!

AI!

AWK / Shell

Perl

PHP

Python

Go

JavaScript / TypeScript

Rust, Swift?



“Servers with cute names”

Salt

Ansible

Docker / Swarm

Kubernetes

Fully Cloud Native?



MySQL / PostgreSQL
Somehow, **MongoDB??**
NoSQL
PostgreSQL!! SQLite!!



Systemd



AI



Technologies are **NOT**
football teams or
musicians!

*(in a sense they are - they
also don't love you back!)*

The Process

1. Repress any quick feelings and verdicts (+ and -) about new things
 - a. Just *don't* - **give it a few months**
2. Disregard **WHO** likes or hates the new things. Really.
 - a. Focus on the technology
3. **Consider your own feelings. Ponder WHY you have the hots for something, or hate it!**
4. That new hot thing that everyone is hyping? Actually go try it out somewhere
 - a. You'll often find that it **doesn't actually work!**
5. **Present/blog/vlog the new thing to colleagues/NLNOG!**

Life long learning: now
for something
completely different

Management?

Compliance?

Training?

Recruiting / HR?

Facilities?

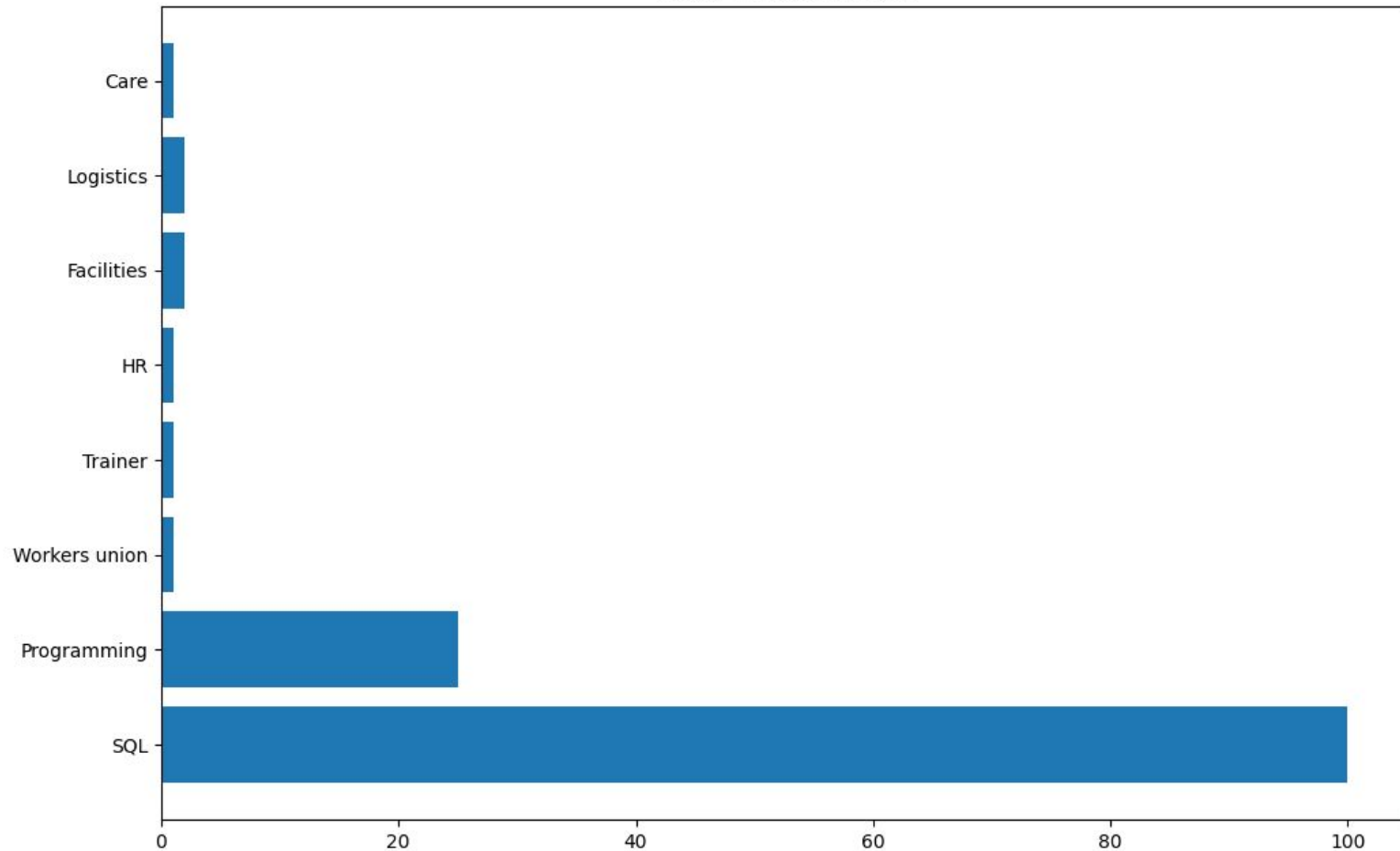
Governance?

Accounting / controller / finance?

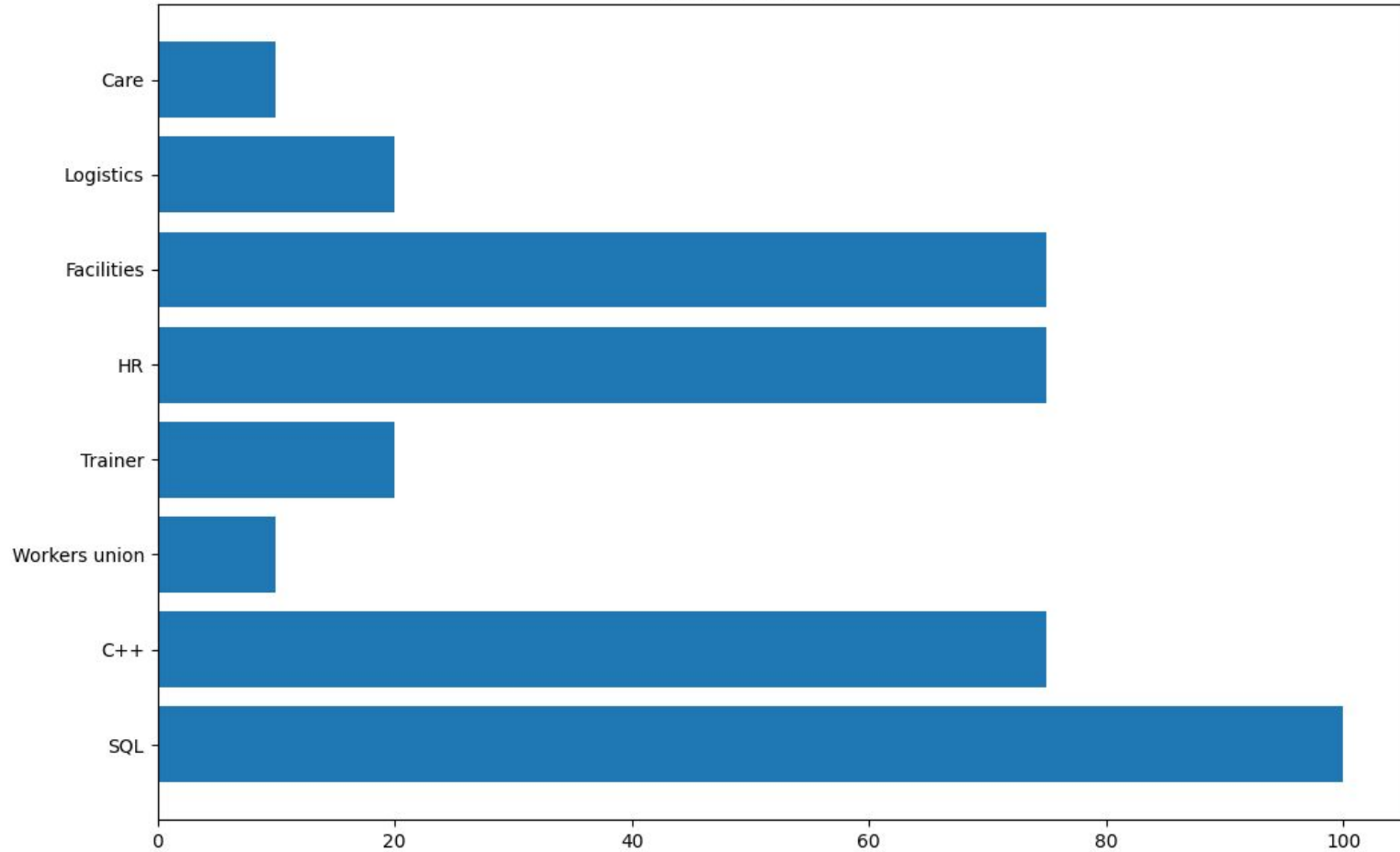
Customer support?

Programming?

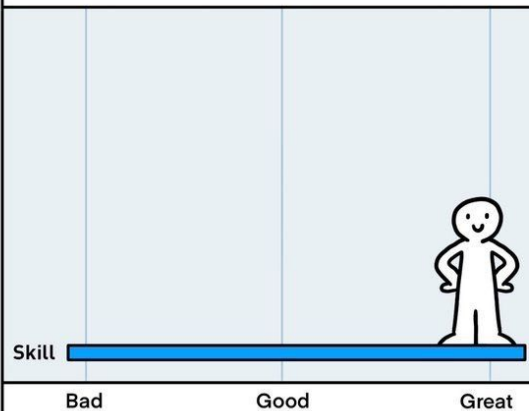
Utility in various fields



Utility in various fields



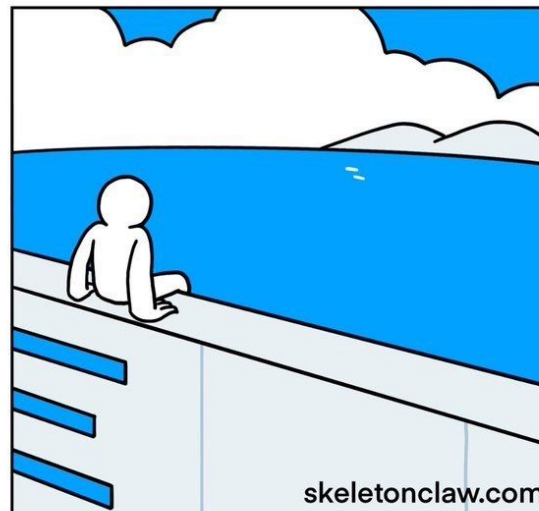
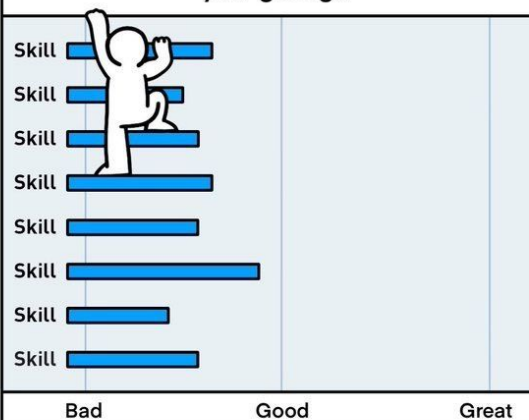
You can achieve true greatness if you focus fully on one thing



If you have too many interests you'll never reach your full potential



Wait, where the fuck are you going?



Happens all the time, but it shouldn't!

<https://www.kendraallenby.com/>



"At this point in your career, your only possible promotion is to management, where you will stop doing the work you love and use a skill set you don't have and we don't teach."

Role of management

Life long learning: your employer/organization

1. The signal / permission to innovate/learn comes from the top
2. Build credibility - don't chase shiny objects
3. Innovation and progress need **ENTHUSIASTIC** permission to also fail
4. A life long learning is not a life long of training courses. Do you actually offer space to learn and innovate?
5. Does your place **VALUE** learning new stuff?
6. Do they possibly **REWARD** you for that?

A life long learning

- **Doesn't mean a life long of training courses**
- Don't just like/hate new things! Use the **procedure**
 - This is WAY too important to leave to chance!
 - Takes serious time, but do share the work!
- Don't avoid occasionally doing **TRULY** new things (perhaps as a side hustle or as a hobby): multiple mental models will make you broadly far more capable
 - And you can prevent ending up in that HR comic
- If your employer/boss/customer doesn't appreciate/hates new things or innovation, **you won't invest in it either**
 - Innovate at home, look for a new job
- **Your choices, over the decades, almost entirely determine your career**
 - Give them the attention they deserve

Good luck!

Een Leven Lang Leren

(maar wel de juiste dingen)

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