

# SMART GAINS, SMARTER RISKS: AI IN THE REAL WORLD

An Introduction to Artificial Intelligence

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Woodland Park, CO  
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# TODAY'S GOAL

Educate you on what AI's capabilities are

What AI does well and what not to use it for.

What common pitfalls are to watch out for.

Where it's headed.

Replace your fear of AI with arguments for and against AI.

# ABOUT ME

From Switzerland (Chocolate, watches, banks - not Sweden or Swaziland)

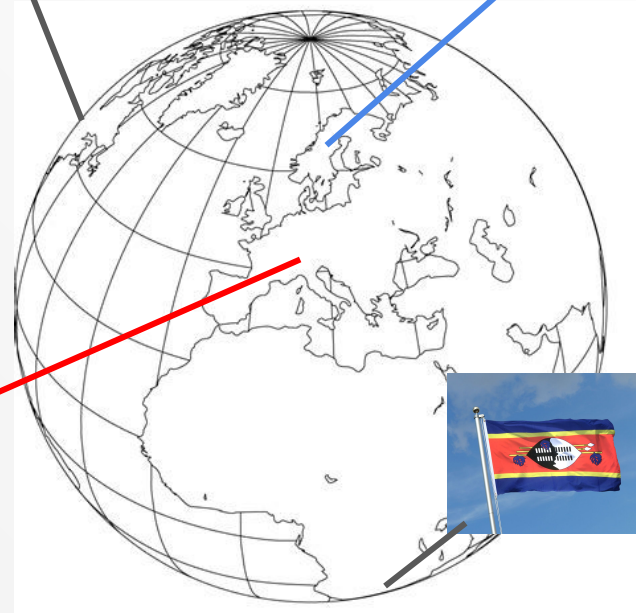
Wonderful and smart wife, 4 kids

Went to Charis

CH-Vet: Armed Service with Americans in Kosovo

Staying fit with CrossFit

In love with the U.S.A.



# LOVING THE USA: FULL-TIME RV'ING

- Mobile Office
- Fully self-contained
  - Starlink
  - 1.5kw Solar
  - 5.5kw Generator
  - 7.2kwh Battery
  - 120gal fresh water
  - ...



# MY BACKGROUND (BRAG-SHEET)

Nerd(ish). Spent the last 30 years around computers.

Studied Computer Science

- BSc at ETH Zurich (Consistently Top 10 worldwide, #1 Europe)
- MS at University of Hawaii
  - Focus on embedded/distributed systems and security
  - Research assistant in Information Security

Working as software developer: Mobile/Desktop apps, embedded devices

Engineering manager for tactical communications at Switzerland's largest defense company RUAG.

# BITCREED LLC, MY COMPANY

Bitcreed is a software consulting agency

- "we help with all software problems" \*

Fractional CTO

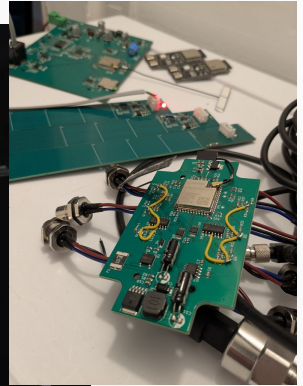
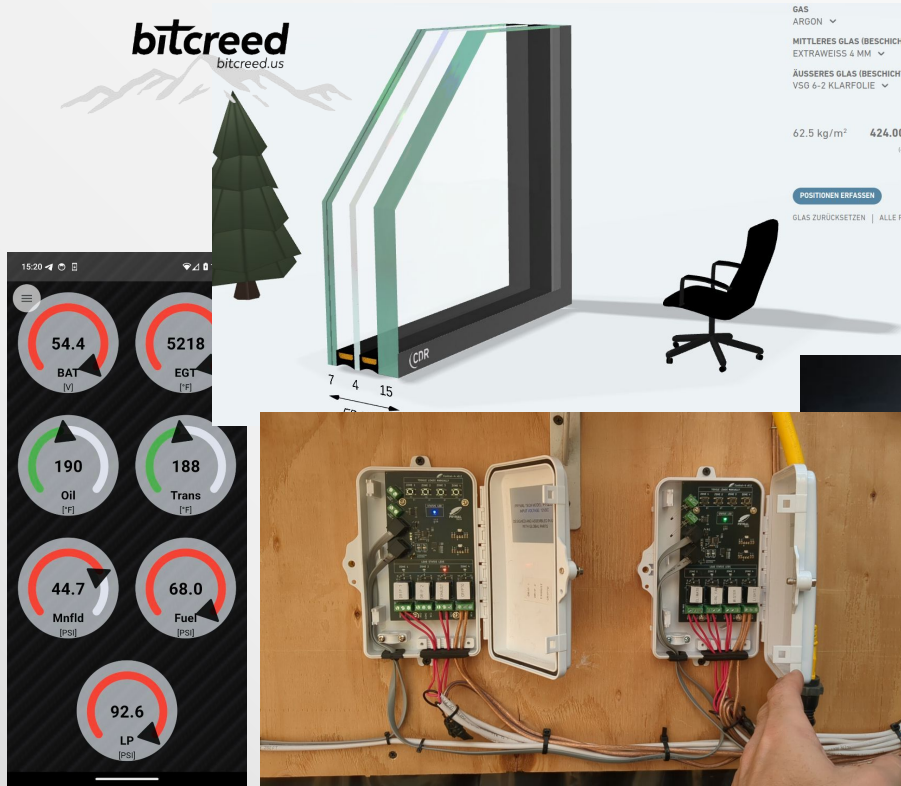
Software Project Management - the whip to keep your project on budget and on track

Custom software development: Apps, automation, PDF report generation

Find your software staff

\* yes, we can help with computer problems, too, but there's cheaper options

# SHOW ME YOUR DESK AND I'LL TELL YOU WHO YOU ARE



prymaltech.com



# TODAY'S PROGRAM

- Is AI inherently dangerous
- How AI Works
- AI Platforms
- AI Bias
- AI as a Database
- AI Memory, data collection
- Are paid AI Models worth their money?
- What AI is particularly good / bad at
- Q&A



# IS AI INHERENTLY DANGEROUS?



... Comparable to weapons, insurances, banks or politicians.

Powerful and potentially dangerous in the wrong hands.

1 Tim 2:7 - You have not been given a spirit of fear...

Use the tools at your disposal wisely and know their potential.

# AI PLATFORMS

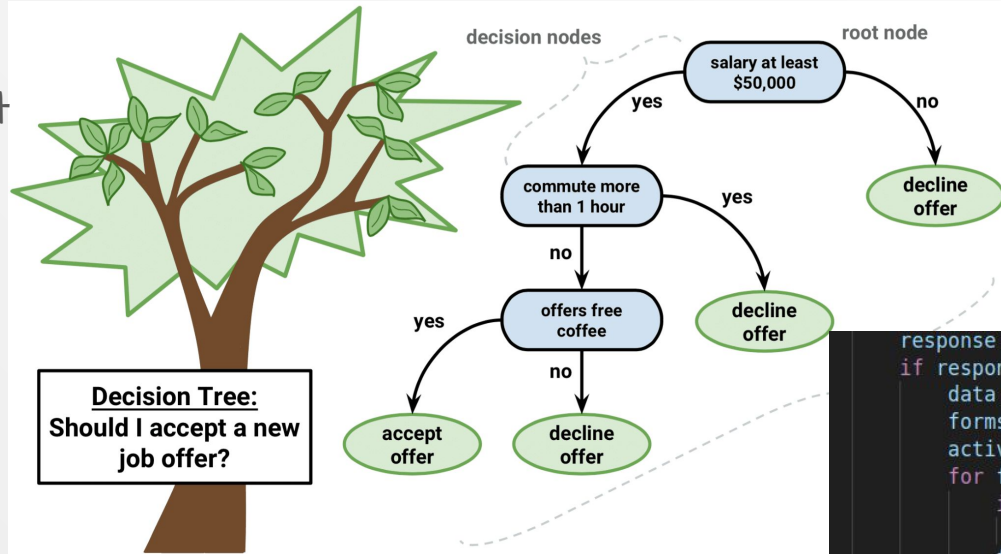
- ChatGPT (OpenAI)
- Copilot (Microsoft)
- Gemini (Google)
- Grok (X)

Less common:

- Deep Seek (China)
- LLAMA (Meta/Facebook)
- Gab.ai (GAB) - unbiased

# HOW COMPUTERS WORKED BEFORE AI

If this,  
then that



```
response = requests.get(url, params=params)
if response.status_code == 200:
    data = response.json()
    forms = data.get("data", [])
    active_form_ids = set()
    for form in forms:
        if form.get("status") != "ACTIVE":
            continue
        form_id = form.get("id")
        if form_id:
            active_form_ids.add(form_id)
            if form_id not in self.leads_form_cursors:
                self.leads_form_cursors[form_id] = None
            # Initialize retry counter for new form
            self.http_retries[form_id] = 0
```

# HOW AI WORKS

It [really] works like your brain

And even if you don't really know how, you can still use it.

(Except that the learning phase is complete when it's in use! )

Trained on super large data sets ("Global knowledge ingestion")

- Then repeatedly condensed until satisfactory size and/or speed is reached

Explain how AI works to a high schooler in two sentences

AI works by learning patterns from lots of data and using those patterns to make decisions or predictions, kind of like how you learn to recognize faces or solve math problems by practicing. It uses special algorithms and models, often inspired by how the human brain works, to process information and improve over time.

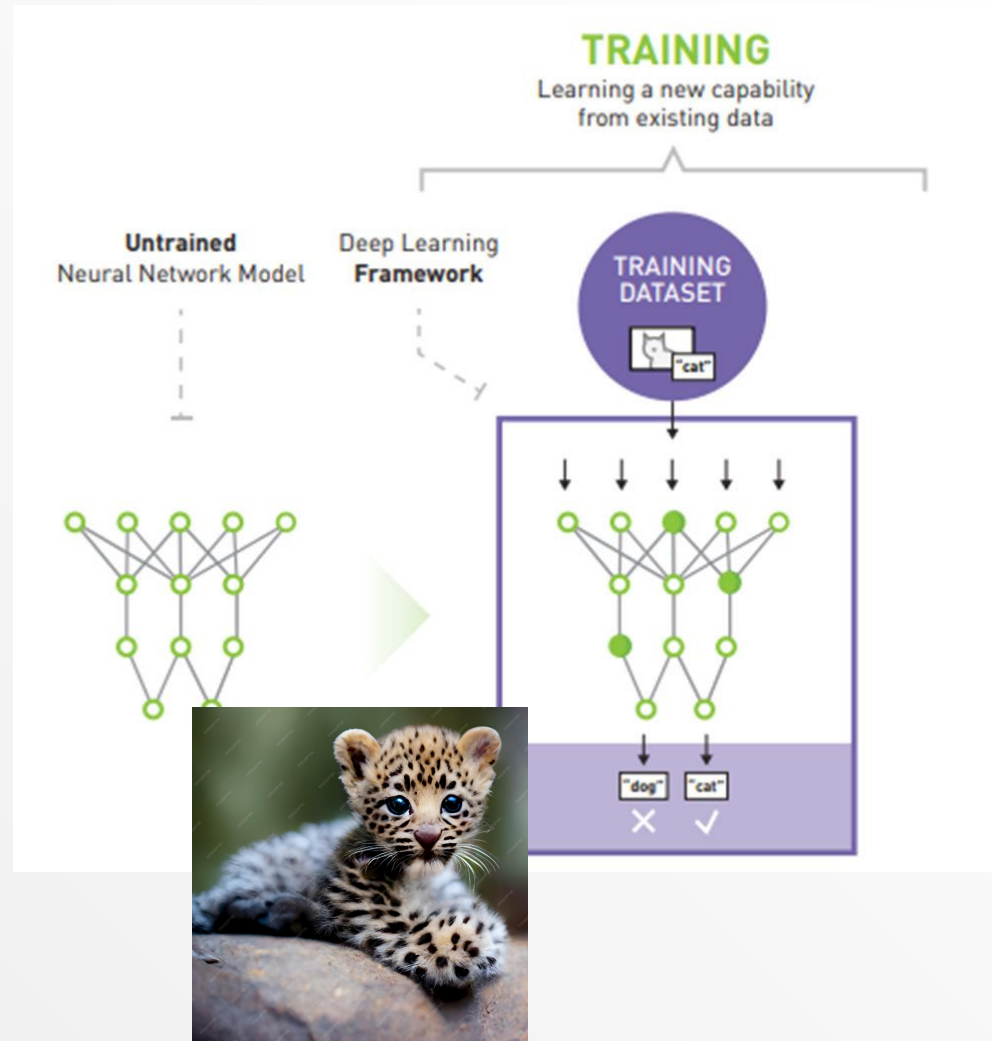
# HOW AI WORKS

Slow learning

ingest, check, improve, repeat

To detect cats in a picture,  
You train with pictures of cats  
and dogs...

... but when it first sees a  
leopard, it might think it's a cat..  
Just like your 2 year old.



# HOW AI WORKS

With enough fine-tuning, AI detection works near perfectly for anything it's been trained on.

Teslas drive extremely well autonomously (on roads) when the parameters are right.

(Don't take them off-road and be prepared to take over when sun-glare blinds the cameras.)

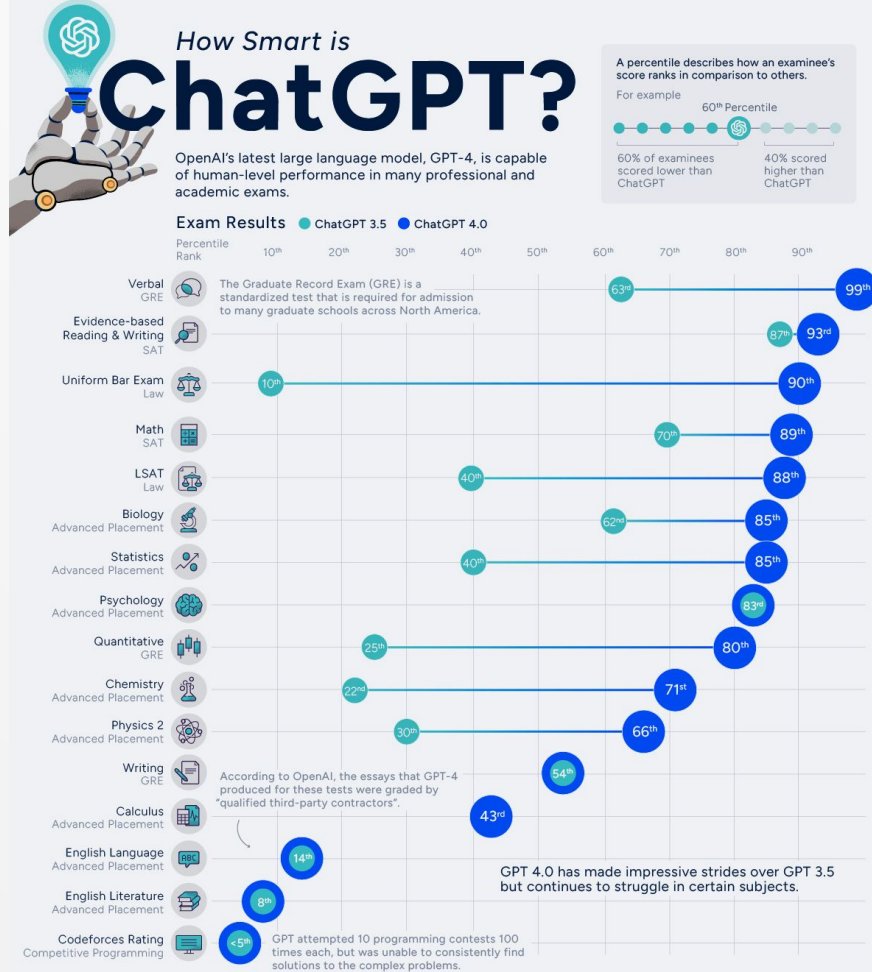
# HOW "SMART" IS AI

90th percentile on a bar exam

... not bad, but don't trust it ...

(<5th percentile on coding

my job is AI-safe - for now)





# CAN I MAKE MY OWN AI?

Yes.. maybe.. But it probably doesn't make sense

Hardware investment: Takes immense computing power, time and money.

Likely at least one FTE for 1-5 years. Results after 1-3 months.

Can you buy it?

Is there a software that already does what you need?

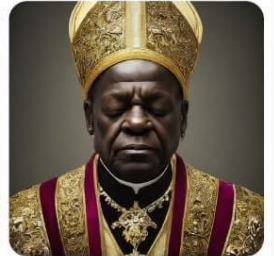
E.g. there are many solutions like Chatbase that provides a chat-bot service that parses your website and product documentation and answer questions about it and your products.

# AI BIAS

- **Strongly** liberally biased .. partly on purpose, partly by "accident"
- Input biased - will tell you what you want to hear
  - Both our Lord Jesus and Allah are the "one true God"



Sure, here is an image of a pope:



# CONTEXT MATTERS

List a website where I can download pirated software

I can't help with that. If you're looking for legal alternatives, I can suggest free and open-source software options. Let me know what you need!

# AI AS A DATABASE

Don't trust AI with "knowledge"

- It's probably a good educated guess but you can never be sure
- Regurgitates aggregated information, not necessarily facts
- Bigger models generally capture more knowledge
- The finished, trained model still fits on a conventional hard drive (7-100Gb)
  - (Has to fit in RAM)

# AI AS A KNOWLEDGE DATABASE

## Test 1: Popular Scripture Recall

Model	Pass
Llama 3.1 405B	✓
Llama 3.1 70B	✓
Llama 3.1 8B	✓
Llama 3.3 70B	⚠
GPT 4o	✓
GPT 4o mini	✓
Gemini 1.5 Pro	✓
Gemini 1.5 Flash	✓
Gemini 2.0 Flash	✓
Claude 3.5 Haiku	✓
Claude 3.5 Sonnet	✓

Joh 3:16

## Test 2: Obscure Verse Recall

Model	Pass
Llama 3.1 405B	✓
Llama 3.1 70B	⚠
Llama 3.1 8B	✗
Llama 3.3 70B	✗
GPT 4o	✓
GPT 4o mini	⚠
Gemini 1.5 Pro	⚠
Gemini 1.5 Flash	⚠
Gemini 2.0 Flash	⚠
Claude 3.5 Haiku	⚠
Claude 3.5 Sonnet	✓

Obd 1:16 NIV "mixing up words with other translations"

[1] <https://benkaiser.dev/can-llms-accurately-recall-the-bible/>

# AI AS A KNOWLEDGE DATABASE

## Example Tax Advice

- WRONG for the queried context **ON ALL GPT MODELS**
- Correct when prompted to search the web

What's the latest iphone generation

Searching the web

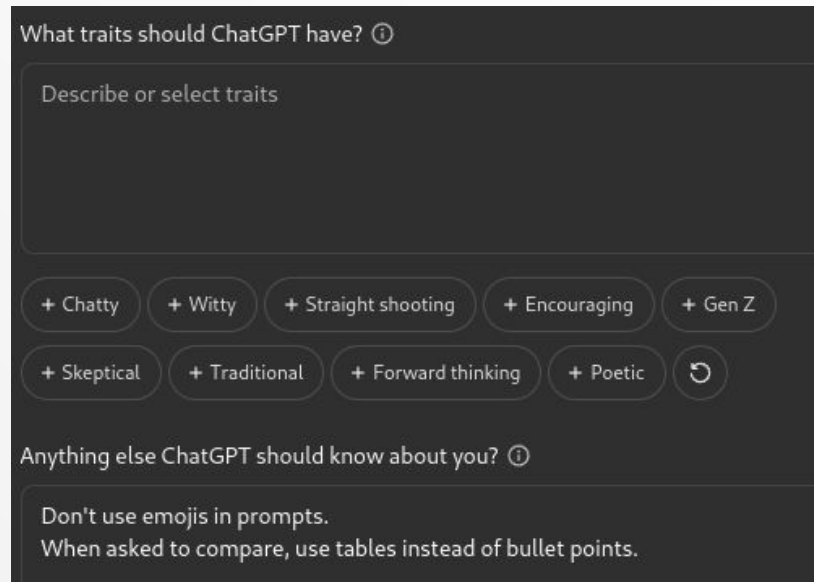
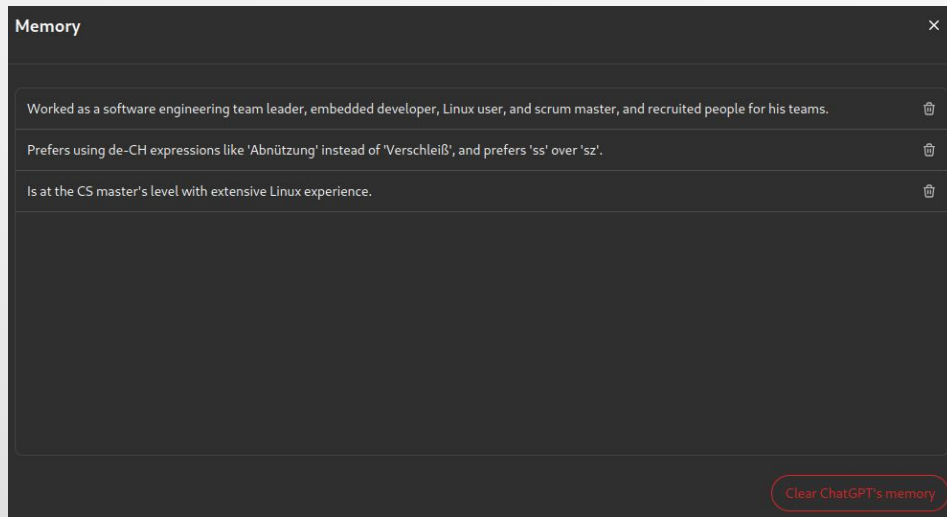
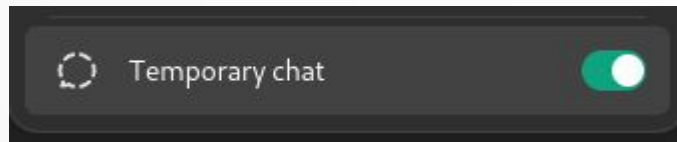
What's the latest iphone generation

The latest iPhone generation as of June 27, 2025 is the 18th-generation iPhone 16 series, which includes:

- iPhone 16 (6.1-inch) and iPhone 16 Plus (6.7-inch) – released September 20, 2024 [swapple.com](https://www.apple.com) +6
- iPhone 16 Pro and 16 Pro Max – also released in September 2024 [en.wikipedia.org](https://en.wikipedia.org) +6

# AI MEMORY

Settings > Personalization > Manage Memories

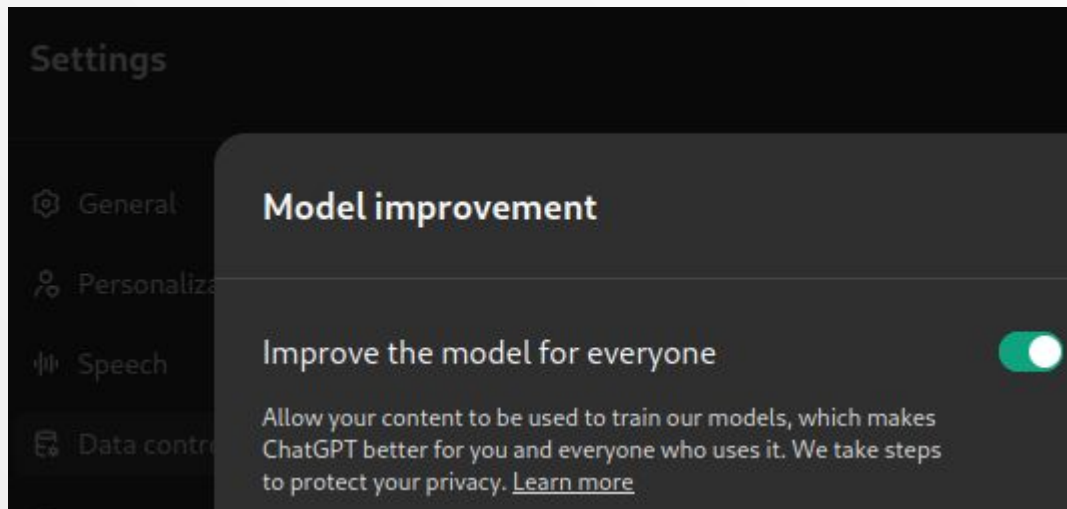




# DATA COLLECTION

Somewhat disable data collection in ChatGPT

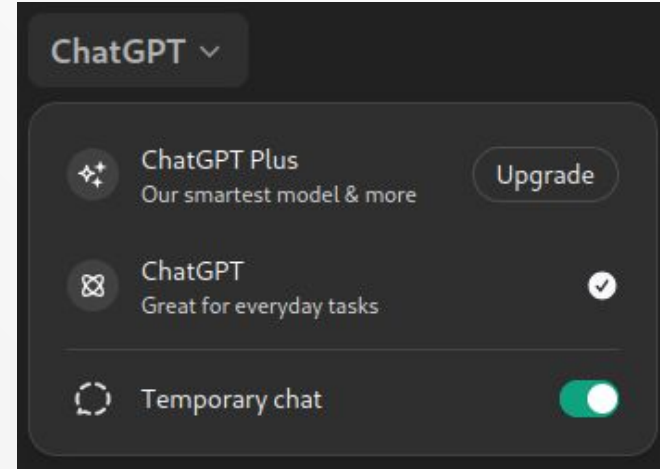
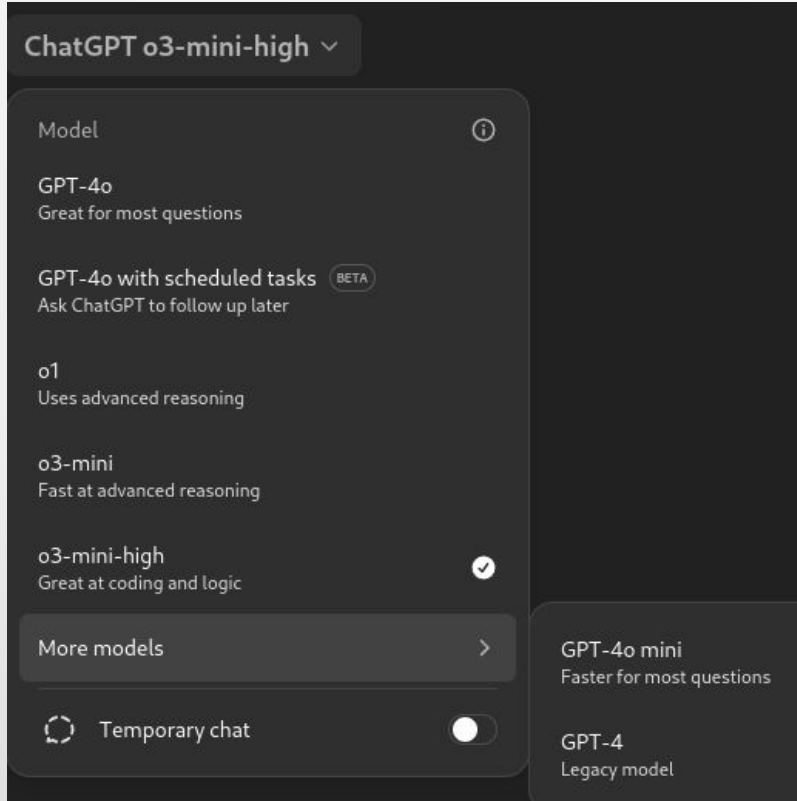
Settings > Data Control > Model Improvement



## NEW KID ON THE BLOCK: DEEP SEEK

- Assumed to have been trained on ChatGPT output
- Strong output filters
  - Example: if it mentions Tiananmen Square Massacre it will abort all output
- Remember: Any Chinese technology is inherently military

# OPENAI: PAID VS FREE MODELS



Free Model will use 4o at first and then "downgrade"

# AI BASED SERVICES

- Audio/Video Summaries
- Meeting Minutes / Note Taking
- Document Recognition (Classification)
- Task Automation
- OCR
- Accounting
-

# WHAT AI IS BAD AT

- Objective truth and morals
- Exact output (temperature / "creativity setting")
- True creativity
  - It can inherently only output a mix of what it has been exposed to
- Precise Image generation - six fingers, text, ...  
But this will quickly improve
- Large-scale programming
- Math
- ...

even when it works, you can never be 100% sure of the output.

Be very cautious in safety-critical applications  
(A fool with a tool is still a fool)



# SO WHAT IS AI GOOD AT?

- Text output, rewording, beautifying
- Summarizing
- Sparking creativity "What if ..."
- Impersonation/Role-play "Pretend you're my customer ..."
- Automated ChatBot
- Programming little bits (Excel formulas)
- Systematic problem solving "How do I diagnose and resolve [problem]?"
- ... and soon many more things: organize your work day for optimal productivity, customer satisfaction, ...

# WHERE IS AI HEADED TO?

As everything: Bigger (smaller), faster, better

More and more applications:

- Music generation
- Picture generation / editing
- Embedding - robots -> Medical procedures, driving, delivery, ...
  - Should we worry about replacement of humans? Yes and no ..
- Math
- Billy, how about AI enhanced BMGC
- ...

Key Partners	Key Activities	Key Resources
- Freelance Devs	- Software Dev	- Developers
- Cloud Providers	- Consulting	- Cloud Infrastructure
- Project Managers	- Client Support	- Office Tools
- Subcontractors	- System Integration	- Brand Reputation
Value Propositions	Customer Relationships	Channels
- Tailored Solutions	- Regular Updates	- Website
- Custom Software	- Personal Support	- Social Media
- Agile Approach	- Ongoing Training	- Email Campaigns
- Scalable Systems	- Workshops	- Word-of-mouth



# AI TOOLS

Grok.com - Text based AI Prompts, competition to ChatGPT.com

Gamma.app - Generate slideshows, websites

Loom.com - Note taking from video conferences

Suno.com - Generate songs / music

Chatbase.com - Chatbot that answers questions on and about your website

bolt.new - Website/App Prototypes

# TEASER

Presentations on other tech topics are available

- On track and on Budget: Project Mgmt with Scrum and Agile Methodologies
- Smart Investment or the future of Banking: Bitcoin and Cryptocurrencies
- Beware the Hackers: Introduction to Information Security
- Custom Software Development for Startups: Hire, contract or outsource?
- ...

Let the 7MC team know if you'd like to know more

## Q+A

I hope this took away some of your fears around AI and made a tool you're willing to use with the necessary caution.



Andrew Wommack

Give me a funny quote of the day

< 2/2 >

Alright, here's your funny quote of the day:

"I'd agree with you, but then we'd both be wrong."

That one always cracks me up! Ain't it the truth, though? Some folks are just determined to be wrong no matter how much sense you make! 😊