

This episode is just going to be a **rant** (發牢騷) on how much garbage is on the internet. I feel like every time I find someone on the internet saying there's this study that says blah blah blah, oftentimes when I **dig deeper** (深入研究) I cannot for the life of me find the study they're talking about. If anything I end up finding paper after paper and meta-analysis at that, **disproving** (推翻) their claim. And this morning Scott was telling me how apparently ChatGPT, a chatbot launched by OpenAI, is very good at producing articles with sensational claims but can't back it up either. As if there's not enough garbage already! Jesus f-ing Christ!

今天早上我在 IG 上看到一個訪談說女生比男生更能控制衝動行為。當下我覺得特別有趣。It made perfect sense to me. 尤其是當他接著說亞洲女生在高程度學習環境，像是大學有顯著的優勢。我根本覺得就是在講我。所以我就花了點時間，看了一下這方面的研究報告，發現那個人說的都是屁。很多時候是這樣的。我們在網上看到了一些訊息。傳播訊息的人說的頭頭是道，又特別符合你的偏見，所以你就把這個訊息當成真理跟你的親朋好友，姑姑婆婆，阿姨，隔壁的小王說。這整個過程你完全沒有查核的動作。這真的是我最受不了的社會亂象。

What the studies actually suggest is that asian-americans do tend to outperform their white-counterparts academically and asian females do perform better but not because of cognitive advantage or better impulse-control. It has more to do with the fact that Asians tend to believe cognitive ability is something you can cultivate whereas white people tend to believe it's **innate** (天生). And asian girls do better than asian boys especially starting in high school because they are more likely to rebel against the asian stereotype. This difference is non-existent when comparing asian boys and asian girls in asian countries. In a nutshell, there's no biological or gender difference. It's cultural!

根據我半個小時快速 google scholar 這個議題。在美國的確亞洲小朋友的成績比白人小朋友好。但是這跟基因，和大腦結構沒有關係。真正的原因是文化教育的不同。亞洲小朋友覺得認知能力是能培養的。他們相信勤能補拙。但是白人小朋友會覺的認知能力是天生的。之前聽 Lex Friedman 的 podcast

他也談到這個話題。不認識的，Lex Friedman 是 MIT 的研究者。他是 russian american. 他說在俄羅斯數學是大家都得學習的，因為俄羅斯的文化相信認知能力是大家都能培養的。在美國不是。如果你數學不好，老師或父母可能就會說那就做你做得好的就好了。這是非常恐怖的文化。我真的在美國聽到太多文人博士說一些完全沒有科學根據，或是思維邏輯有很大問題的話。聽到我真的覺得這個是讀書讀傻了。

至於亞洲女生是否比亞洲男生又更聰明。並沒有喔。在美國亞洲女生的成績在高中時忽然比男生高不是因為他們的大腦優勢，而是因為美國亞洲男生在這個階段會想要脫離 asian stereotype 亞洲人刻板印象。所以可能就不那麼努力讀書。可能會開始抽大麻，裝酷啊。不要說男生，我自己高中都有經過這個過程。But it's just a phase. I'm back to being asian and nerdy.

Next week I'll talk more about real gender differences that are shaped by **social norms (社會規範)**. I'll be referring to a book called "Self-made Man", written by Norah Vincent, a journalist who lived as a man for 18 months. 下個禮拜我們再來聊一下造成男女大不同的文化因素。我會介紹 Norah Vincent。他是一個女生，但是他長得很中性，所以他假扮成男生，在男人堆裡生活了 18 個月。是一個很有趣的個人實驗。For now, here's Scott with #cryptonews...

We're entering a new era. Web3. Cryptocurrency. The Metaverse. Augmented and Virtual Reality. Artificial Intelligence.

Recently, there has been a lot of discussion about OpenAI's new chatGPT chatbot, and everything that it can do. Understanding and producing code, writing articles and stories. Even helping children cheat on writing assignments!

Similarly, AI Art and the AI which produces it has become a topic of contention. Some people believe it's the end of real art and many artists worry that AI will soon be taking their place. Meanwhile, others have rushed to embrace these innovations as new tools to help them create more, to create better.

But almost lost among all the flashy new technology grabbing the headlines right now is a neat little invention called Heatbit.

Heatbit is a small home heater that mines bitcoin while it heats up a room. In fact, it does so by that very act of mining bitcoin.

Mining is the process whereby advanced hardware attempts to solve extremely difficult math problems. The first to do so on the network is rewarded with freshly minted bitcoin. This is the only way that new bitcoin is ever created.

It takes energy to power a mining rig, and the process is **hardware-intensive** (耗費的硬體運作). It generates a lot of heat.

The Heatbit takes this natural byproduct of bitcoin mining and uses this heat to warm up your home.

While the Heatbit is turned on, it works to mine bitcoin. As it works, it also heats up your room. Unlike a normal mining rig that often runs very loud and gets dangerously hot, the Heatbit is designed with comfort and safety in mind. It runs quietly, no louder than an air conditioner on sleep mode. It has been certified to both US and Canadian safety standards. This includes passing numerous tests, such as ensuring that it won't become a hazard even if a blanket is **draped over** (掛在上面) it, for example. As it runs, sensors inside the Heatbit monitor the temperature to ensure it runs safely.

Scott 這個禮拜搞得像在寫業配。我們沒有收費喔。只是真的覺得 Heatbit 是個很有趣的產品。因為挖礦本身就會產生很多熱能，跟暖氣結合非常合理。

Of course, bitcoin mining has become big business. Many companies operate massive mining farms and spend incredible amounts of money on warehouses full of powerful machines that work to mine bitcoin all day every day. Once

upon a time, individuals could mine bitcoin from their home with a regular computer. Those days are long gone unfortunately as these corporations have machines that an individual can't match on their own.

However, maintaining decentralization is important for maintaining the integrity and independence of bitcoin. Anyone can mine bitcoin, and the more who do, the better for everyone. But it takes a powerful machine to earn bitcoin.

One solution is something called mining pools. This is when many small miners come together to share their resources in order to compete with the huge mining operations. The rewards that are earned are then split among all the many contributors of the mining pool.

One major criticism of bitcoin and other cryptocurrencies is the massive amounts of energy being consumed to run massive mining rigs.

The creator of Heatbit, Alex Busarov, has addressed this concern. **He believes Heatbit can be a green solution, even as it brings more people online and increases decentralization.** To him, the Heatbit is intended to be a heater first and foremost, rather than a pure mining rig. A heater, even one that mines bitcoin, isn't meant to be run all the time. It is meant to be run when it's cold. In this way, the heatbit does the same job as an ordinary heater and uses the same amount of energy. The reward for its use is a small amount of bitcoin.

In the future, he hopes to have a version of Heatbit that operates as a water heater. A water heater, unlike the present Heatbit, would be used year round for hot water to wash dishes, for showers, and so on.

早期我們可以在自己家挖礦，挖比特幣，但是現在有太多的大型礦場，一般家用電腦根本沒辦法競爭。這對比特幣的非中央性造成直接的威脅。Alex Busarov 設計挖礦家電也是希望鼓勵更多人加挖礦，維持比特幣的非中央性和獨立性。

The idea is intriguing.

It invites us to imagine similar uses. Perhaps we could heat our cars with a similar technology. We could mine bitcoin, earning a few Satoshis, as we drive. Or maybe we could use that heat in the kitchen -- some sort of stove or oven, with the heat to cook our food being generated by the process of mining bitcoin.

In this way, ever greater decentralization is achieved at very little extra energy cost. Instead, energy that we already use every day is converted into a system that rewards us with a small amount of bitcoin or perhaps some other cryptocurrency of our choice.

The possibilities seem endless. Even my coffee maker could one day be mining bitcoin for me.

Maybe I'll ask chatGPT about that.

Back to you, Su.

Alex Busarov 的想法其實可以充分延伸到其他家電, 或是整個智能型的家, 也可以挖其他的加密貨幣。我們期待的人工智慧黃金時代終於要來了嗎? Are you excited about GTP4? Or are you worried that the machines are coming for your job? Don't worry, at Scu Universe we'll arm you with critical thinking skills to prepare for the future. See you next week.