

YOU'VE BEEN HAD

Cryptocurrency is a giant multi-level marketing scheme

David Ryan Polgar | February 28, 2018



📷 The holy grail of pyramid schemes? (Reuters/Mohamed Abd El Ghany)

It's hard to see red flags when you're wearing rose-colored glasses.

Cryptocurrency's warning signs having been coming fast and furious. A new report indicates that half of initial coin offerings, which are the crypto world's money-raising equivalent of an IPO, [have already died](#)—and many of the remaining are blatant scams with no intent to build a product. Then there are the crypto-rich stories that shouldn't pass a basic smell test of reasonability and logic. Just look at Ripple. In

early January, Ripple co-founder Chris Larsen had a [net worth of \\$59 billion](#), moving him ahead of Facebook's Mark Zuckerberg, the co-founders of Google, and the founder of Oracle. But following a crypto crash in mid January, Larsen [had lost \\$44 billion](#) of his net worth. Gravity can be a heartache.

Then you have the mythology surrounding Satoshi Nakamoto, the anonymous listed inventor of bitcoin and its underlying blockchain technology. A mysterious character who creates 880,000 bitcoins of dubious value whose value is propped up by a public enthralled by stories of newly minted crypto millionaires? That's not going to end well. Throw in a twist where one person [allegedly manipulated](#) prices on the Mt. Gox currency exchange to drive the price from \$150 to \$1,000, and it all sounds like a Hollywood film. The red flags are right out there in the open, waving in the wind.

But the public should know by now how these kinds of movies end: with a few people getting rich and a whole lot of people losing money.

Despite the damn-the-man libertarian framing of cryptocurrency as the great democratizer of wealth, just [1,000 people own 40%](#) of the entire bitcoin market (which was [valued at over \\$200 billion](#) in early 2018, and now hovers somewhere over \$100 billion depending on the massive daily fluctuations).

That's not the currency of the future—that's a giant multi-level marketing scheme.

Broadly defined, multi-level marketing schemes work by creating a structure where people are recruited and then incentivized to recruit new members. Nutritional-supplement seller [Herbalife](#) and cosmetics company [Mary Kay](#) are two prime examples. The more people who buy into the concept down the line, the more that the individuals at the top make, hence the closely related pyramid-scheme synonym. A participant's livelihood therefore depends on recruiting new believers, and the proselytizers who were around from the early days deemphasize the associated risks. Eventually too many people try to join the bottom and the middle bricks begin falling out—but not before the early adopters are able to make an exorbitant amount of money.

Isn't this exactly what is happening in the cryptocurrency world? Those who bought in early have an incredibly strong interest to recruit new "members": The more people who buy crypto, the higher the prices become, and the thicker the owners' digital wallets get. As the field goes mainstream, their current holdings will spike in value, especially given the fact that many cryptocurrencies trade with small volume. But eventually the hype will die down, and the latecomers will shoulder the brunt.

The thought of making easy money, especially after seeing others around you make money, triggers

people to suspend their typical reasoning. Looking to capitalize on this moment of suspended logic, new cryptocurrencies are multiplying like Gremlins. There are currently [1,519 cryptocurrencies available to purchase](#), many of which are listed at well under a penny. (But if that penny goes up to a dime, someone makes a lot of money.)

Much like your essential-oil obsessive cousin who finally sees through their pyramid scheme's shiny facade, a light is beginning to shine on crypto harpers. Respected investor and currency trader George Soros said at the recent World Economic Forum that "[bitcoin is not a currency](#)." Likewise, Warren Buffet is skeptical: "I can say almost with certainty that [cryptocurrencies] will come to a bad ending," [he told CNBC](#) in January. An EU Commission has just stated that [cryptocurrencies are not a currency](#) and do not have guaranteed value. Even the North American Bitcoin Conference [stopped accepting bitcoin](#) as payment *to its own conference*.

Yet true believers are still undeterred. We have seen this mass delusion play out before, and you don't have to go back to the [Tulip Mania](#) of 1636-1637 to see it. The late 1990s featured a mania around Beanie Babies, where adults [spent thousands of dollars](#) for plush toys made in China. Their price continued to rise based on the belief that the Beanie Babies had turned into a new type of asset, and lots of people [lost major savings](#). But still, there was a winner: Creator Ty Warner is currently worth [\\$2.7 billion](#).

In a similar fashion, cryptocurrencies are minting millionaires and billionaires because they are convincing down-the-line participants that there is easy money at the end of the rainbow. The newness and complex technical nature of cryptocurrency masks a multilevel-marketing strategy we have seen perpetuated throughout history—except instead of slinging beauty products or protein powders, we're now buying invisible coins.

You can follow David on [Twitter](#). Learn how to [write for Quartz Ideas](#). We welcome your comments at ideas@qz.com.

FORGET ME NOT

You probably won't remember this, but the "forgetting curve" theory explains why learning is hard

Nikhil Sonnad | 2 hours ago



📷 He'll probably forget this tomorrow. (Reuters/Toru Hanai)

Learning has an evolutionary purpose: Among species, individuals that adapt to their environments will succeed. That's why your brain more easily retains important or surprising information: It takes very little effort to remember that the neighbor's dog likes to bite. Remembering the dog's name is harder. One ensures safety, the other is just a random fact.

But today, the kinds of things humans want to learn are rarely focused on survival; we also use our adaptive, evolutionary memory to remember new languages, 11-step face-washing routines, obscure vocabulary words, and facts about Star Wars. The trick to doing so, once you've decided to acquire a new skill or build up your knowledge in a particular area, lies in convincing your brain that the information matters. In other words, you have to overcome the "forgetting curve."

Hermann Ebbinghaus' memory experiments

The forgetting curve is a mathematical formula that describes the rate at which something is forgotten after it is initially learned. The idea is over 100 years old. It originates in the late 19th century, with German psychologist Hermann Ebbinghaus, who was among the first scientists to perform experiments to understand how memory works.

Ebbinghaus performed his experiments on himself. He would first memorize lists of meaningless syllables, say these:

DIF, LAJ, LEQ, MUV, WYC, DAL, SEN, KEP, NUD

After that, he tested himself periodically, to see how many of the nonsense syllables he remembered at various points in time. Ebbinghaus **discovered** that his memory of them quickly decayed. This phenomenon of learning and promptly forgetting information will be familiar to anyone who has tried to cram the night before an exam.

Another way of putting it is that the forgetting curve is initially very steep. On a chart, the amount of knowledge retained drops almost straight down. Ebbinghaus also found, though, that his memory eventually leveled off. So the next day, he might remember just a few items from the list—but he would remember those for many days afterward.



Yet if this steep drop-off always followed learning, it seems it would be extremely time consuming to remember any full list. But we know from experience that such forgetfulness doesn't always occur (Princess Leia's prison cell block number: AA-23).

Ebbinghaus made a second discovery: The downward slope of the forgetting curve can be softened by repeating the learned information at particular intervals. This principle is the foundation of the learning method known as “[spaced repetition](#),” where material is learned then reviewed after increasingly large time gaps.

The modern version of Ebbinghaus' discovery is defined with [this equation](#):

$$R = e^{(-t/s)}$$

In this formula, R is a measure of how readily you can recall something, s is the “strength” of your memory, t is the amount of time that has passed, and e is the magical [Euler's number](#). Repeating and reviewing information increases the strength of the memory, leading the downward slope of R to become more gradual.





Overcoming the forgetting curve is about more than raw repetitions. There has to be space between the reviews. It doesn't work to just study a new fact 15 times in 1 hour and overcome the curve. If the fact is already at the front of the mind, no work is being done in recalling it again. But if information is repeated at intervals, the brain has to [reconstruct that memory](#), strengthening it like a muscle.

Spaced repetition works on other animals, too. One [study](#) trained bees to recognize sugar water from other, less exciting stimuli. The bees that were trained every 10 minutes learned much better than those trained every 30 seconds.

An unhelpful but common metaphor is that of the brain-as-computer, or computer-as-brain. The two things are often presented as working the same way. A brain “stores” memories like files on a hard drive, and software uses “neural networks” to learn like the human mind does. But the reality of learning is different. The computer won't forget where the file is, and the neural network can only learn what it's told to.

The forgetting curve shows how brains are different. They can learn anything, which means they need to filter out the important from the trivial. Luckily, understanding how the curve works makes it easier to learn things that may not be necessary for survival, but are deeply rewarding. Like a new language, a musical instrument, or the name of Chewbacca's father (it's [Attichitcuk](#)).

Read next: [The scientific, efficient way to learn languages: “spaced repetition”](#)