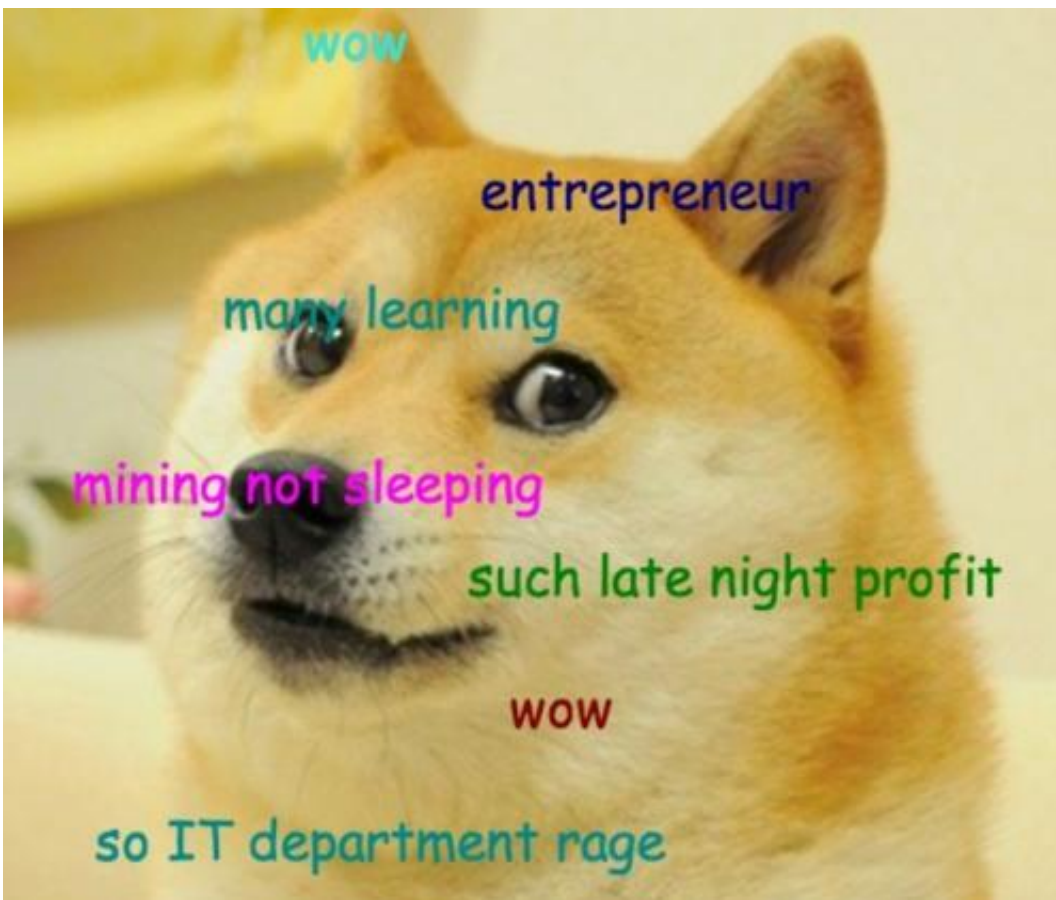


Universities should ban Facebook before punishing Dogecoin miners

March 10 2014, by Gordon Fletcher



Students are busy mining Dogecoins at night.

Universities are facing a dilemma now that students have been discovered mining cryptocurrencies using campus facilities. Are these students displaying entrepreneurship or unacceptable behaviour?

Harvard has decided it's the latter, [permanently banning](#) an unidentified person from using its computer research facilities after they were found using a supercomputer to mine dogecoin. It is not known if the punished miner was a student or member of staff.

Imperial College London now needs to choose a side in this argument after a student – who also remains anonymous – revealed that they had been using campus facilities to mine around £20-worth of the cryptocurrency.

Many grey area

This campus-based Dogecoin generation follows several months of intense interest in Bitcoin mining. The spectacularly sudden rise and fall of bitcoin prices has shown that other cryptocurrencies also have the potential to bring further massive windfalls. With at least 200 cryptocurrencies that can currently be exchanged into bitcoin and then onto more familiar forms of everyday [fiat money](#), its no wonder people are tempted to try to get rich quick.

In both cases, computing power and electricity were being used without the official knowledge or approval of the university so Harvard's response is not necessarily that surprising. But other universities may well be wondering what their position should be on this issue in anticipation of finding one of their own students mining.

A quick search throws up no reference to bitcoin or cryptocurrency within the acceptable use policies published by IT departments. Although there are coverall policies about not using facilities for commercial purposes or for loading software without permission, miners could still technically continue with their activities without breaking a specific rule.

Such learning

There are only two valid arguments that a suitably informed IT manager could fall back on if they decided to pursue a miner caught in the act.

Computers, and particularly their component chips, quickly fail when they operate at a high temperature for too long. Any enthusiastic miner with access to "free" computing power will want to run a computer at 100% of its capacity for as long as possible to extract the maximum number of coins. This will reduce the lifespan of any computer – potentially quite significantly.

The more invisible but equally important cost of mining is the value of the electricity consumed. All the [online calculators](#) for determining return on investment for mining cryptocurrency consider this important factor. If you're spending hundreds of pounds to produce a handful of Dogecoins, it's probably not worth the effort, but in a university environment, the cost of electricity is a more complicated equation.

While mining on a computer for long periods of time will consume electricity, this will be only marginally greater than a computer in a common access lab being used for Facebooking or watching cat videos on YouTube – two activities that appear to represent much of the activity that goes on in any university's common-use computer labs. The key difference is that mining directly converts electricity into exchangeable value for the student. Using Facebook on a university computer only converts the university's electricity into value for Facebook, by enabling the delivery of advertising to students. You don't often see universities [banning Facebook](#) though.

And over in the business school, where students are encouraged to be entrepreneurial, understanding cryptocurrencies could bring some very real benefits. Cryptocurrency mining requires a student to think about

the likelihood of successfully mining a particular coin and the best way of pooling resources to increase success. It also requires an appreciation of the costs associated with the activity, even if the resources are free to the student.

If they go on to trade their cryptocurrency, still more skills need to be developed. All of the coin exchanges mirror the functions and principles of a more traditional securities market. Trading cryptocurrency can give students the chance to experience a form of trading floor without the issues of access or cost associated with more mainstream exchanges.

Most importantly, actively encouraging an understanding of mining among students would help to avoid "futility mining", mining for those coins that produce such a low return on investment that the setup, electricity and maintenance costs are never recovered. With awareness, students would avoid mining Bitcoin entirely. Those using a desktop computer with no specialised hardware such as a graphics cards designed for high-end gaming would learn to steer clear of mining cryptocurrencies that are based on the calculation function used by [Bitcoin technology](#).

Without [specialist technology](#) mining these coins is simply not viable. My own experience mining coins based on the original Bitcoin technology is evidence of how difficult it is and how unimpressive the returns can be for small-scale mining.

After three weeks of mining with a specialist USB-based device, my portfolio of 134,000 coins represented in 13 different currencies are nominally worth 94.5 US cents at March 2014 prices. Of course, with time and some luck these coins could become much more valuable but nothing is certain in cryptocurrency.

This is why the two anonymous individuals from Harvard and Imperial

College were mining dogecoin. Based on an alternative technology to bitcoin, dogecoin and other similar coins are easier to mine in a university computer lab. However, it will not be long before even this phase of the cryptocurrency gold rush will become the domain of large scale operators with [custom equipment](#).

All of these interrelated complexities coupled with cutting edge concepts and technologies are exactly the types of knowledge and skills that universities seek to teach to their undergraduate and postgraduate students. Rather than pursuing the anonymous Imperial College student perhaps he or she should be invited to offer guest lectures to the computer science, business and management, IT and MBA students. That is, if they can be dragged away from Facebook long enough to listen.

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