Crypto-wills: can self-administering estates do away with executors?

16 OCTOBER 2018

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CATEGORY: ARTICLE

Bitcoin peaked in mid-December 2017 at $19,800. It is now hovering over $6,000, but that’s still big money. Those who had the acumen to ‘mine’ Bitcoins back in 2009 when the cryptocurrency came on the scene could now be multi-millionaires.

But what about when they die? The tech-savvy want a tech-savvy will.

Blockchain Apparatus, a Denver-based start-up, launched an application which it says will ‘make it much easier for a genuine will to be upheld, for a bogus challenge to be dismissed, and for courts to come to factual findings much more quickly.’

In short, the technology establishes a self-administering estate. It enables someone to make a crypto-will with details of their assets and their chosen beneficiaries. And then, on that person’s name being added to the rather ominous sounding Death Master File (a US Social Security database of citizen deaths), their assets are automatically (or at some later chosen time) transferred to their chosen beneficiaries.

As of now, Blockchain Apparatus is only known to have one client who has created a crypto-will to handle his cryptocurrency holding. But this technology has the possibility to completely change the world of trusts and estates.

A crypto-will has the advantage over a paper will in that it can never be lost. It exists on the blockchain as a unique, immutable, time-stamped digital object.

It also has the advantage that it can never be tampered with. The blockchain is decentralized – a copy of the crypto-will would be saved by everyone on the network and repeatedly verified so that all copies are the same. If one version of the crypto-will was hacked, the system would flag the discrepancy. This should make them completely secure.

A crypto-will maintains privacy in that the person who makes the crypto-will and the chosen beneficiaries can only be identified by their ‘public keys,’ similar to a username. Identification through public keys also enables you to make a new crypto-will and for it to be easily identified as your last will.

But what makes a crypto-will so interesting is the smart contract. Smart contracts were first introduced by Nick Szabo in 1994. They are essentially ‘if, then’ programs, ie if this happens, then that happens.

In order to establish the ‘if,’ you need something to notify the program that you have died. Blockchain Apparatus uses the Death Master File. There is another service called Pulse Check which sends you a monthly ping to which you reply to confirm that you are alive. If you do not reply to a set number of reminders, it assumes you are dead! Assuming you have such a database and the information on it can be trusted, you can set your crypto-will to transfer your assets whenever you want from that point onwards – the ‘then’.

It is believed that about 4 million Bitcoins have been lost as a result of people dying and not telling anyone how to access their holding. Do you really trust your executors enough to give them your public and private keys now, while you are still alive? Even if you do, most people name a friend or family member, or perhaps their family solicitor, as their executor. Do your executors have the technological ability to access and distribute your cryptocurrency holding? In December 2017, an IT worker from Newport claimed to have unintentionally thrown away 7,500 Bitcoins and wanted to dig up his local landfill site. A similar thing happened to Campbell Simpson, editor of Gizmodo Australia, in 2012.

With a crypto-will, there is no need for an executor. This means there are no executor’s fees, or fees from a tech expert brought it to access your cryptocurrency holding. And, importantly, you avoid human-error and the potential for negligence.
A crypto-will is also less vulnerable to interpretation. A badly drafted will can result in thousands of pounds being spent on rectification proceedings. Was the gift subject to tax or after tax? Were the chosen beneficiaries to receive £5,000 each of divided between them? A crypto-will puts in place the ultimate transfer of assets so it is absolutely clear what the testator intended.

I am not saying that crypto-wills are going to do away with executors or contentious probate lawyers all together (phew!). There are undoubtedly issues to overcome.

For one, a crypto-will may not comply with section 9 of the Wills Act. Arguably it is in writing and the testator could give effect to the crypto-will by electronic signature. Also, there are companies offering digital notarisation services so it is feasible that the electronic signing of a crypto-will could be witnessed by two witnesses. But all of this is untested in the courts.

It also leaves the question of tax unanswered. Colorado doesn’t have inheritance tax, so the one person with a crypto-will through Blockchain Apparatus can rest easy. But what about in the UK which has 40% inheritance tax? A calculation could be done when setting up the crypto-will so that the tax is automatically paid to HMRC at the same time as your chosen beneficiary receives the balance. But HMRC would have to be willing to accept cryptocurrency. And what if the tax rules changed in the interim?

Another issue is how a crypto-will could be legitimately challenged. The Inheritance (Provision for Family and Dependencies) Act 1975 allows certain categories of people to apply for provision from an estate even if they are not named in the will. And what if the testator did not have capacity or was the subject of undue influence?

What if a testator makes a crypto-will and then makes a paper will changing his or her wishes?

What about non-electronic assets? Arguably, if the Land Registry moved all its functions online, a crypto-will could transfer your real estate. But it still can’t transfer your antique dining table.

Clearly the technology has a long way to go. But, as technology advances and becomes more user-friendly, and as people become more comfortable and trusting of this technology, the law will change and crypto-wills could become mainstream.

In 1995, astronomer and scientist, Clifford Stoll wrote in Newsweek,

‘Visionaries see a future of telecommuting workers, interactive libraries and multimedia classrooms. They speak of electronic town meetings and virtual communities. Commerce and business will shift from offices and malls to networks and modems. And the freedom of digital networks will make government more democratic.

Baloney. Do our computer pundits lack all common sense? The truth is no online database will replace your daily newspaper, no CD-ROM can take the place of a competent teacher and no computer network will change the way government works.’

Do you really want to be the person who said it couldn’t happen?

An edited version of this article was published by The Times on 02 August 2018 - https://www.thetimes.co.uk/article/write-your-will-into-the-blockchain-9s365dfkw
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