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Speaker 1

Hello and welcome to the School of Law podcast from the University of Aberdeen and podcast series where each episode we concentrate on a different topic on the subject of law. This episode we talk cryptocurrency and the blockchain. My name is Neil Wayman.

00:00:22:23 - 00:00:38:07

Speaker 2

And I'm Lauren Mitchell. For each episode, we have been given access to the lecturing team here at the University of Aberdeen. And for this episode, we will be speaking with experts. Doctor Alister McPherson and also Professor Bergey UK's Elle Ripley.

00:00:38:12 - 00:00:55:18

Speaker 1

Now, I think it's safe to say that we've all heard about cryptocurrency, and you may already know that it operates outside of traditional financial regulations, but you're about to learn much, much more about it in this episode. And the law Concerning it.

00:00:55:20 - 00:01:05:22

Speaker 3

The law is significantly challenged by this new type of technologies. And I think the question is now how the law will deal with these questions.

00:01:05:24 - 00:01:27:22

Speaker 4

And actually there is an Aberdeen connection there because in the code for the first block in the blockchain of Bitcoin, there was a reference to a newspaper headline, The Times 3rd of January 2009, which stated Chancellor on brink of second bailout for banks and the Chancellor at the time was Alistair Darling, and he was a graduate of Aberdeen School of Law.

00:01:27:24 - 00:01:32:24

Speaker 3

I think this concept is very different than the concept of bitcoin.

00:01:33:01 - 00:01:43:18

Speaker 4

An individual in Florida bought two pizzas with 10,000 Bitcoin that would nowadays work out to be \$600 million. Well.

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Speaker 2

Absolutely love the pizza story.

00:01:46:13 - 00:02:09:09

Speaker 1

And the Aberdeen connection, which we'll hear about in just a second. Incidentally, we talked to two students in this podcast later on on the Elphinstone Lawn about their experience here at the University of Aberdeen. But now let's get into that chat with Alistair and Birju. I asked them to describe to us what is cryptocurrency and explain to us, please, the blockchain.

00:02:09:14 - 00:02:43:13

Speaker 3

And crypto asset is a type of asset which has emerged relatively recently, with the use of a new technology called distributed ledger technology. And blockchain is a type of distributed ledger technology. It's a specific way of recording data in blogs and then chaining these blogs to each other. Forming blockchain and Bitcoin, underpinned by blockchain, is the first crypto asset, introduced in 2009 for making payments.

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Speaker 3

And this has been followed by many others. And today we are talking about a global market, with perhaps thousands of crypto assets serving different purposes that can be used for making payments, or granting access to a particular product or service online or providing entitlements similar to securities. But we don't, have a universally agreed, definition of a crypto asset yet.

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Speaker 3

It's a novel concept. It is still very much developing and evolving, but, it can be generally understood as, cryptographically secured digital representation of value, which can be transferred, recorded and stored electronically. So crypto assets do not physically exist in the real world. They have an electronic or digital existence only within a system or network.

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Speaker 3

And they are underpinned by distributed ledger technology or a similar, technology. And some people actually think that, the invention of distributed ledger technology or a blockchain, as a type of it is more revolutionary than the invention of crypto assets themselves. Although, distributed ledger technology is known as a technology underpinning, crypto assets, it's actually has different use cases.

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Speaker 3

It's not limited to crypto. And, it's constituted as a game changer for, for some sectors. And with the use of this technology, transactions can be executed. Record it and stored peer to peer in a system. And this is quite significant and novel because traditionally you need a central authority or a third party acting as an intermediary between transacting parties to execute this transfers or transactions, record them on Central Ledger and store this, record to keep this record.

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Speaker 3

But in in systems underpinned by DLT, you don't need this. So let's say that, for non-cash payment, if you send money to someone else, this is usually done, via bank account. So the bank acts as an intermediary between you and the other person. The bank execute, the transfers are recorded on. It has ledger, central ledger and keep that record for you.

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Speaker 3

But in in the L2 based system, distributed ledger based system, you don't need that party. Third party. You can just do it directly without their, involvement. And in this system, these are all done by system participants, peer to peer manner. But there is more to that because in this system there's a synchronized ledger, within the system, and the ledger is being updated with every new transaction.

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Speaker 3

So you can think of this as a is like a database which is shared and across, across the participants. So participants can access this ledger. They can have identical copies of that, but no participant can change it secretly because, updating the ledger requires a consensus of, participants. And these participants could be located across the world, everyone.

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Speaker 3

And, so we are talking about truly global system with, transactions between parties, who are often not known to each other and with the use of, distributed ledger technology or blockchain, they can transact to each other directly, peer to peer, without the movement of any central authority, any intermediary. And this is a fundamental shift from centralization to decentralization and from intermediation to disintermediation.

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Speaker 1

Now, I think we've all heard about cryptocurrency, and now, we've had it explained to us. Thank you for that. But I wonder, Alister, could you tell us just why and how did they emerge?

00:07:10:20 - 00:07:35:08

Speaker 4

I would say that they were the product of the convergence of technological developments and financial crisis. So on the technological side, there were advances in computer science from the 1980s and 1990s onwards, including in relation to cryptography, the rise of the internet. And when you think about the internet, essentially, it's a very wide network of parties interacting with one another.

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Speaker 4

And of course, it's also often pseudonymous. You don't necessarily know who the other person is that you're dealing with. And these then became fundamental aspects of what became crypto assets. And I think as well as things like the arrival of computer games, where you could have in-game tokens, was also a relatively important element on the financial side of things.

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Speaker 4

In 2007 eight, there was the financial crisis, the global financial crisis, and the effects that went on for a number of years. And in the wake of that, there was, a lack of faith in banks, major financial institutions dealing with assets in the traditional markets and also in terms of the state and its involvement in terms of regulating those particular markets.

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Speaker 4

And this helped to develop, more kind of libertarian ideology in certain quarters, including parts of the internet. And as you mentioned earlier, Bitcoin can be identified as essentially the first true cryptocurrency. And this emerged following a proposal, published a paper in 2008 by someone going by the name of Satoshi Nakamoto, that individual or group of developers has never been identified.

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Speaker 4

But in 2009, at the start of that year, there was the arrival of Bitcoin for the first time. And actually there is an Aberdeen connection there because in the code for the first block in the blockchain of Bitcoin, there was a reference to a newspaper headline, The Times 3rd of January 2009, which stated Chancellor on brink of second bailout for banks.

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Speaker 4

So that shows the connection with the financial crisis and how this type of asset emerged in that context. And the Chancellor at the time was Alistair Darling, and he was a graduate of Aberdeen School of Law. So there is actually an Aberdeen connection with crypto assets after 2009. So once we're getting into the 20 tens, there was the emergence of many other cryptocurrencies and all types of crypto assets that Virtus mentioned already.

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Speaker 4

And in 2000, ten or so, and indeed so, yeah, ether. Which is to Ethereum, I think it's, which is so it's our platform. Yeah. The CDM platform is one of them. There is tether, which is a type of stablecoin which is connected to a fiat currency or multiple fiat currencies.

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Speaker 1

And can you explain fiat currencies?

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Speaker 4

Yes. So for instance, this would be the pound sterling or the US dollar. So what we traditionally think of as currencies. And one thing to note, of course, is that cryptocurrencies are not actually currencies or indeed money in the proper sense of the term. So something of a misnomer. Often in the context of crypto, you find terms which don't quite mean what you would expect them to mean.

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Speaker 4

And I'm kind of often drawn back to, Voltaire's description of the Holy Roman Emperor Empire as not holy, nor Roman nor empire. And you can say similar things about some of the terminology in terms of and cryptocurrencies and so on.

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Speaker 1

Could you give us an example of these, Alister?

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Speaker 4

So I mean, obviously cryptocurrency itself is not a currency. Decentralized autonomous organizations, they're not organizations. As such, it's debatable as to whether they are autonomous or indeed, decentralization can even be debated from one perspective. I don't know about you. Do you have any other examples to mind? A mining mining would be another one.

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Speaker 3

Yeah. So it has, it's just a verification of, a process, part of the process for direction of, transactions.

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Speaker 2

Now, this might be a little bit of a buzzword because a lot of people will have heard about mining and mining for Bitcoin. Could you just explain a little bit about what that is exactly?

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Speaker 3

So actually it is part of the process within the system. So once a transaction, will take place, there is kind of a verification and authentication mechanisms. And part of is mining, between the miners or participants within the system. And it involves solving complex mathematical, algorithms or problems as part of that. And it requires quite significant of, computational power as well.

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Speaker 3

And, in doing so, miners verifies the transaction and also for, for their, involvement as the miners will work as the finance which, which is known as proof of work, they are being rewarded.

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Speaker 1

Okay. So let me get this correct. As the computerization is taking place from those who have verifying the transactions on the blockchain, they are in turn, rewarded.

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Speaker 3

Yeah, some allocation of of their relevant, cryptocurrency in most cases. So in traditional systems, of course this is all done by the third party, you know, central trusted third party, which is usually the bank, for example. But in this systems, these are done by the participants themselves.

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Speaker 1

And the participants could literally be anybody.

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Speaker 3

It depends. For some models which are public and permissionless models, they could be anybody. So, de anybody can join this system basically. And there are some other models. Bitcoin is the first model which is public and the ledger is public. Anyone can participate. It and or anyone can see the transactions online. For other models, for permissioned or private systems, they are open to a, predefined and approved group of participants.

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Speaker 3

And some of this verifications are being done by what's called trusted node or participant. So it depends on the model, how the system and works and the exact technicalities, of the system.

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Speaker 4

An over time, the computing power necessary to successfully mine has become more and more, powerful, essentially. To the extent that no ordinary individuals like us, in terms of computing facilities available to us, wouldn't be able to do it. You basically need supercomputers.

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Speaker 1

Right? So the process of mining then has changed over time. But let's let's go back to the start of it all. And can you tell us about where it all began?

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Speaker 4

So in 2010, that was when the first payment was made using Bitcoin. And famously an individual in Florida bought two pizzas with 10,000 bitcoin. And that would nowadays work out to be \$600 million. Well, given the rises in the value of Bitcoin in the meantime, quite extraordinary actually. And of course, since, crypto assets have emerged, there have been various periods of time where the prices have gone up and other times where there have been so-called crypto winters, where there has been a collapse in price for a period of time before reemerging in terms of value.

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Speaker 4

And in 2021, El Salvador actually made Bitcoin legal tender. There, whereas other jurisdictions have been somewhat more skeptical. China, for instance, prohibits trading with cryptocurrencies, so there is a mixed picture out there.

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Speaker 2

Alister, this is a question for you. What are the pros and cons then of crypto assets?

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Speaker 4

I think the first thing to say here is that there are many people who are skeptical about crypto assets and what their and their intrinsic value actually is. It can be difficult for someone to discern what they actually give you, because there's no physical existence there. And it by itself doesn't seem to be anything that's kind of productive alone.

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Speaker 4

Of course, some in some places you can purchase things using crypto assets, but in everyday life that is just

not possible. People don't tend to accept that as a form of payment and a contract. People can accept what they want by way of payment, but usually they're not willing to accept that in everyday life at least their most widely used.

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Speaker 4

Of course, in terms of being an investment, people buy them with the expectation that the value will rise, and then they can potentially sell them later down the line and make a profit, as it were. I am actually myself relatively skeptical about some of the apparent use or value of crypto assets, but I think it's inescapable when you look at how much they're worth.

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Speaker 4

I think at the moment a single Bitcoin is about \$60,000 or so. So you can't really argue with that in terms of them having a value in the marketplace, in terms of whether you have a positive view of them or a negative. To some extent, it would depend upon your ideological leanings. If you are fairly libertarian in attitude, if you're quite kind of anti financial institution, anti state, then you're more likely to be favorable towards them because as Burgess was mentioning earlier, you do cut out intermediaries and the state has less involvement in this type of asset than it does in terms of other types of assets.

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Speaker 4

However, on the other hand, people may argue that there is a good reason why the state is often involved in terms of regulating investments and various types of assets, because it's maybe necessary to protect consumers or to protect other types of investor. And there may be arguments made against crypto assets in terms of the level of accountability that's there.

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Speaker 4

And you have to ask yourself who is benefiting from them in terms of particular pros and cons of I've alluded already to the volatility of crypto assets. The prices have risen for things like Bitcoin over the years, but we have also dropped a point some time. And you may remember a few years ago, the hype, the craze around NFTs, non-fungible tokens and many of those are now worthless.

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Speaker 4

And you can therefore see the dangers that can exist there. But again, the price for various types of crypto assets at the moment are very high and in terms of specific advantages that they can give. But you mentioned earlier that because there are no intermediaries involved, you take out financial institutions and it's peer to peer, it's direct and that can make transactions quicker and it can make them cheaper as well.

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Speaker 4

There's also the matter of accessibility. If you have an internet connection, if you're based anywhere in the world, really, except in places where there is prohibitions on dealing with these types of assets, you can engage in such transactions and there are elements of privacy that are there. So the pseudonymous nature, because you can, if you hold a crypto asset, be identified personally, at least in terms of the relevant system, that gives you a level of privacy which may be desirable for whatever reason.

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Speaker 4

But there are at the same time elements of transparency, because in terms of the blockchain, the records on that relevant system, it shows all the different transactions that have taken place under our identifiers of different parties by way of a pseudonym, in terms of your relevant accounts.

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Speaker 1

So anybody and everybody can see the transactions that have been made and the value of what those transactions are.

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Speaker 4

Essentially, there's records in the blockchain which people who are using the system can identify. But of course, you can't see who the individuals are that stand behind the relevant pseudonyms on the system in question.

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Speaker 1

And the transaction itself looks like, hexadecimal could not be right. If you were going to take a look at it, essentially.

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Speaker 4

You say yes. Would you say that? Yeah.

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Speaker 1

Nonsensical. In other words, you're looking at something that would would mean nothing to anybody glancing at it.

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Speaker 3

But I mean, you can see the transactions, but it's difficult to make sense of the transactions because of the denominator. You can't really identify, you know, who is transferring to what system.

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Speaker 4

And I mentioned earlier that in the very first block in the blockchain there was some text referring to the headline in the times. But that's an exception. That was that original one. In other words you don't have text in the same form there.

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Speaker 1

Okay.

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Speaker 4

And in terms of other advantages and disadvantages, on the advantages side, there's something level of security in terms of the assets. So long as you retain control of and the private key. So in terms of being able to control what happens with the assets that are in your relevant account and on the disadvantage side, there is obviously a huge amount of hype around crypto assets, and it's difficult to know the extent to which this is a reflection of the reality of it, or whether there maybe is some sort of bubble there which could potentially burst.

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Speaker 4

And there's obviously therefore concern if you're investing that the price may drop very, very quickly because of the volatility and the valuation of these types of asset, its, type of asset, where there's the possibility of relatively easy manipulation in terms of the sheer pseudo unlimited, in terms of the holding of the assets, because you could have a number of addresses and there could be sales between them, which can pump up the value.

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Speaker 4

There are other possibilities of frauds or other types of misconduct. There was a very high profile collapse of, crypto exchange Ftxs in the relatively recent past, and there have been fraud prosecutions arising from that and lots of uncertainty for investors too. And there are also fears about crypto assets being used for things like money laundering and terrorist financing.

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Speaker 4

And so these are quite concerning. And we can maybe come back to that in some detail in terms of regulation. And even though there is a certain level of security as regards the systems themselves, there can be dangers too. There was a highly publicized, situation involving a man in Wales who for the past ten years has trained.

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Speaker 4

He's tried to access, rubbish dump because a hard drive was accidentally thrown out, and he's been trying to get access to this dump so that he can then go and try and find the hard drive because it has bitcoins on it. I think in terms of today's value, it's probably over 200 million pounds worth. And he's been trying to cut deals with the local authority, but so far unsuccessfully.

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Speaker 4

And coming back to environmental issues, this is a really significant problem. So in terms of the carbon footprint for the mining operation, some people have estimated that given specific years and depending on the specific analysis that you do, the carbon footprint for Bitcoin could be as high as the whole carbon footprint of countries like Greece, maybe in one year, Slovenia, Sweden, potentially others as well.

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Speaker 4

So there are potential there are very significant environmental concerns that exist around crypto assets, including Bitcoin. So all raises this question of whether they're worth it, whether it is worthwhile to support this type of asset. Given some of these negative factors to do the positives outweigh the negatives.

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Speaker 2

Weighing it all up, then, because it's anonymous, when people are trading online in cryptocurrency, it must be quite difficult for it to be controlled.

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Speaker 4

Yeah, this is one of the real challenges of course, because it's not something which is always set within national boundaries. There's this real international component to it. And yeah, the internet in some respects is a very democratic institution insofar as we are all using the internet every single day of our lives and engaging with material on it. And we can, if we want, go ahead and seek to buy crypto assets and there may, of course, be states where there are criminal and civil penalties imposed.

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Speaker 4

So you then run a particular risk. But it is very difficult to police, given those elements that extend far beyond individual national boundaries.

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Speaker 3

And it's difficult, to be controlled and also regulated as well. At the same time, because of this unique features of the US. So it's not only controlling but regulating. And that was the very, very behind the idea of Bitcoin anyway, creating such a system where there is no regulation, no law, we might come back to that later on this idea.

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Speaker 3

And but then, we started to have a lot of issues around, you know, legal issues, regulatory issues and so on.

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Speaker 4

Yeah. And of course, in the future, if there were to be another financial crisis and further eroding of faith and traditional financial markets institutions, then you can see the possibility that there will be further rise in the perceived value of crypto assets.

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Speaker 1

But can you tell us a wee bit more about El Salvador then as a country? Is it now accepting cryptocurrency as a means of payment?

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Speaker 4

Yeah, a legal tender essentially. And there's been some controversy about this, but there are a number of states around the world that are examining the possibility of digital versions of their own currencies. Obviously at the moment, if you're engaging in transactions, most of us, in terms of purchases, are doing so electronically. We're not used, especially in the wake of the pandemic.

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Speaker 4

We're not using coins and notes so much anymore. But that is something different from an actual digital version of currency, because if you're buying online, essentially it's engagements between your banks. If you have money in your bank account, basically what that is is a right to receive payment from your bank if you sought to withdraw. And then banks are engaging with one another.

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Speaker 4

If you're purchasing from someone else.

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Speaker 4

In Britain, there is an ongoing project looking at a possible digital pound.

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Speaker 3

Yeah, the UK is one of the, various countries, which are currently exploring the possibility or feasibility and to of digital currencies issued by Central banks. And this concept is very different than the concept of bitcoin. Because we, we, we discussed, fiat currencies. And then there is on the other side there is bitcoin like cryptocurrencies.

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Speaker 3

So fiat currencies are issued are the exercise of sovereign states. So they are state backed. So when we are talking about British bonds or euro and so on or US dollar, they're all state bank. But when we talk about bitcoin like cryptocurrencies they are privately issues. They are not backed by any, any state. So the concepts are very different.

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Speaker 3

But because of this potential of a blockchain or distributed ledger technology, various countries are trying to explore whether they can use this new technology, to actually issue, their currencies in digital form, like, like a digital cash. So, but this is quite, very significant and different than the, what Bitcoin or other cryptocurrencies are.

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Speaker 3

In fact, yeah.

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Speaker 4

And of course, because of the involvement in the state, undermines some of the underlying principles, philosophy of crypto assets.

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Speaker 1

Anyway, Butchie can you tell us something about the notion of code as law?

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Speaker 3

Yeah, and we have already touched upon on this a bit. So, crypto assets underpinned by blockchain or distributed ledger technology operate based on code. So rather than formal rules or, regulations and they are self-contained system. And given these futures some argued that or we don't need law anymore, because the law is now replaced by technology and or code.

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Speaker 3

And in arguing this, they use their, famous slogan of code is law, which comes from actually work of, Lawrence Lessing, who had used this, the same provocative title for his his work in actually raising the opposite argument. So he defended the opposite argument. But, over time, crypto assets, have started to give rise to, various questions.

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Speaker 3

And, they need to be resolved within legal systems, these questions. So I think it is now clear that the law is not replaced by technology, or code, but the law is significantly challenged by, by this new type of, technology is and I think the question is now, how, the law will deal with, with this questions and how the law will accommodate crypto assets within existing legal frameworks or whether, the law needs to be reformed, for this purpose.

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Speaker 4

Yeah, I think I would agree with that. There is always this question of the interaction between emerging technologies and the law. And in this context, the idea of code is law. I'm drawn to an episode of The Simpsons from the mid 1990s, where Lisa manages to create life in a tub and that develops civilization, so on in the context of that tub.

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Speaker 4

So it has its own little society, its own set of rules, but fundamentally it needs to interact with the outside world as well. And this is like a system such as Bitcoin that you're creating. It's a system in and of itself. But at the same time, it needs to interact with what is outside. And the law is the regulating power beyond those specific technical confines.

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Speaker 4

And the law has the ability of imposing its well, in a sense, upon that world of technology. So there's always going to be that interaction there.

00:29:54:18 - 00:30:04:08

Speaker 2

Alister, does the law adequately accommodate crypto assets in relation to the treatment in English law and Scots law, referring to property law?

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Speaker 4

Yes. I think there are lots of interesting things that could be said in relation to this. I suppose you can look at two broad aspects so that there are the regulatory components. So the extent to which investors will be protected by the system and the controls that are in place in terms of things like the trading of crypto assets, and then also how this type of asset fits into wider private law as it's known.

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Speaker 4

So the law of property, the law of obligations and so on. And in terms of the approach that you take, there are different options available. You can as far as possible, seek to integrate this new form of asset within the existing system. Or you can come up with something bespoke taking account of the novelty of the asset. And in terms of the regulatory side of things, there is a bit of a mixture of both because of course you can have hybrid approaches.

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Speaker 4

For example, there are specific requirements for firms engaging in crypto assets, asset backed crypto asset activities to register with the Financial Conduct Authority, and this in part is due to fears about such assets, such firms engaging in money laundering activities and other illicit activities. And there are also specific rules that exist in terms of financial promotion of such assets.

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Speaker 4

So those are the kind of special bespoke elements. But beyond that, it's a question of the extent to which the particular assets fit in to the more general framework of regulation. So cryptocurrencies generally don't fit into that framework. They're not regulated in the same way. But the closer the crypto assets approach existing what are called securities like shares or debt instruments, the more likely it is that they are going to be regulated in the same sort of way on the private law side of things, even if you take the view that you are skeptical about the innate value of crypto assets, it's still important for private law to determine how it deals with such assets.

00:32:07:22 - 00:32:38:08

Speaker 4

Give you a few examples. Imagine that you are a spouse and your partner has such assets, and then you're in the context of a divorce. Given their value. Presumably you would want to have a certain level of entitlement to those assets by way of some sort of outcome in the court. Or if you are a creditor of a debtor and you want to enforce against their assets and you know that they have valuable crypto assets, again, you want to know there are mechanisms available in the law to enable you to enforce.

00:32:38:10 - 00:33:15:19

Speaker 4

Or if that party is insolvency, you want to know that you have an entitlement to a share of those proceeds from the assets. Or if you are the child of someone who owns crypto assets and they die in succession law, you want to know what the answer is in terms of whether you will inherit those things. And property law is absolutely vital in terms of all of this, because if you can identify crypto assets as a type of property object or a type of asset in which you can have property rights, the whole apparatus of property law can help and also assist in answering questions in relation to areas like succession law, the law of

00:33:15:19 - 00:33:50:04

Speaker 4

trusts, bankruptcy law, family law, and so on. In English law. There are a number of cases now which confirm that crypto assets can be property objects, you can have property rights in them, and the Law Commission of England and Wales has done some excellent detailed work in this area as well. And this has

led to proposals for, a short piece of legislation which would clarify the specific property category into which crypto assets may fall and where digital objects.

00:33:50:06 - 00:34:29:20

Speaker 4

In Scotland, the position is a bit different. We don't have case law on the topic. There's a general absence of case law in relation to crypto assets and although, Scottish Government Expert Reference Group has examined the area to some extent, it's unclear how the Scottish Government may proceed. So there's a lot of work that can be done in this area in terms of continuing to explore the extent to which crypto assets can be integrated into the existing system of property and other areas of private law, and also how potentially the law should be reformed if it's not entirely suitable, as the law currently stands in terms of certain specific issues.

00:34:29:20 - 00:34:53:15

Speaker 4

For instance, how exactly do you transfer ownership of crypto assets? Can you do it off chain asset warehouse and not within the system itself? Or does it have to be in that system for the law to recognize a transfer? Could someone who is acquiring such an asset in good faith from someone who's a non owner, so maybe there's been some sort of hacking or someone has illegally acquired someone else's crypto assets?

00:34:53:17 - 00:35:11:07

Speaker 4

Can someone acquiring from them in good faith obtain valid title? And in terms of things like debt enforcement, how exactly do you gain control of someone else's crypto assets? These are all currently fairly open questions, and there's no definitive answer as things stand.

00:35:11:09 - 00:35:17:11

Speaker 1

So what future developments can you foresee in relation to crypto assets and blockchain then?

00:35:17:13 - 00:35:52:23

Speaker 3

So we have been seeing a rapid growth and expansion of crypto markets globally. And so there's a trend towards these different types of assets keep emerging with, with technology. And now they're being placed under the broad umbrella term of digital assets, blockchain or more broadly distributed ledger technology, has a significant potential to transform various sectors, in the future from banking and finance to, to trade.

00:35:52:23 - 00:36:32:06

Speaker 3

And this is actually already happening. Some use cases and commercial practices have already emerged. For example, why do development and use of distributed ledger technology based platforms for making payments or for creating and exchanging important, trade documents? As as we already mentioned, various countries, are exploring the feasibility of central bank digital currencies. So I think, this kind of novel and innovative initiatives, supported by technology will continue in the future as well.

00:36:32:08 - 00:37:06:00

Speaker 3

And, it will be interesting to see how the law will react to all these developments today, to these naive, and novel concepts. And law does not often, develop as fast as technology. It rather tries to catch up with it. And various countries, have been assessing the suitability of their laws and, whether their notes need to be reformed and if so, how to do it in a future proof way so that the law will not become outdated.

00:37:06:02 - 00:37:51:02

Speaker 3

Quickly. At the University of Aberdeen, here we are currently conducting, a research project on digital assets, funded by the Royal Society of Edinburgh. And these are some of the questions we are exploring for

Scotland and Scots law as, as Alister also, has already mentioned and because of the truly global nature of crypto assets and distributed ledger technology, blockchain, there are also international projects and initiatives from different organizations or institutions to develop widely accepted, legal solutions to, to, to the problems in this area.

00:37:51:04 - 00:38:29:22

Speaker 3

Perhaps another, interesting question is that how, legal sector and education will, will, react to all these developments and, I think the next generation of lawyers will need to be equipped well for dealing with, this kind of novel questions arising from, crypto assets and blockchain and, as as Alistair has already mentioned, these questions arise as not only in financial or commercial law, but, even in the law of succession or family law, because of the this diverse and expanded use of crypto assets.

00:38:29:22 - 00:38:38:19

Speaker 3

And again, here, at universal, providing the address on these topics in our offerings, at undergraduate and postgraduate level.

00:38:38:19 - 00:38:56:06

Speaker 2

So I might just interrupt you there because that kind of leads on perfectly onto the final question, which is anyone who's listening to this podcast who are interested to learn more about what the School of Law offers here at the University of Aberdeen regarding crypto and blockchain, what's currently on offer?

00:38:56:08 - 00:39:28:16

Speaker 3

At University of Aberdeen, we address, these topics in our current offerings and arising from relating to crypto assets and, blockchain and distributed ledger technology at undergraduate and postgraduate levels. And, about, on campus and, online. And we are also expanding, our offerings in fintech, as we recognize, this at the importance of this area for, legal, legal education and practice for the future.

00:39:28:18 - 00:39:49:11

Speaker 4

And as you will realize, from everything that we've discussed today, there are so many interesting questions in relation to crypto assets and other new forms of technology. And this gives rise to really exciting opportunities for education and research, including PhD study. The University of Aberdeen bursary.

00:39:49:11 - 00:40:00:21

Speaker 1

Alister, I was really looking forward to today's podcast. You haven't let me Down. Thank you so much for a great chat. We've learned so much and thank you for taking part in the School of Law podcast.

00:40:00:23 - 00:40:05:23

Speaker 4

So thank you very much indeed.

00:40:06:00 - 00:40:29:02

Speaker 2

This is the School of Law podcast from the University of Aberdeen. Now, just before we sign off this episode, two of the students who attend the University of Aberdeen have been chatting to us about the travel connections around the university. So I know the university offers a free shuttle bus from like the Hillhead residence halls to the university, which is really important for first year students.

00:40:29:02 - 00:40:45:19

Speaker 2

I feel just because you maybe you still don't know. Like the area Hillhead is a bit up as well, so it's hard to get down to uni. So it's great that they offer like free shuttle as well. And your young Scot card where you

have also free bus travel. That's really important. I think for students now.

00:40:45:19 - 00:41:01:00

Speaker 1

Abdulla, I just had an aircraft fly overhead which brings us nicely onto transport links. There are strong transport links within the city and of course we have the airport, which is good because there is a strong international student community here, isn't there?

00:41:01:02 - 00:41:13:18

Speaker 5

Yeah. They say actually there's a special bus. That's like, specifically like it's for, every half an hour from here to the airport.

00:41:13:20 - 00:41:30:14

Speaker 2

The airport is quite close to us. And I think it's just it's easy to get to the airport. It's a small airport. And like I said, I usually take the ferry up to Shetland. I've never tried the ferry to anywhere else, but it's also a really nice experience.

00:41:30:15 - 00:41:42:08

Speaker 5

Because of the proximity of the campus to the city. It's really like very easy to get down to the city, do whatever you want to do and then head back without any problem.

00:41:42:10 - 00:42:03:19

Speaker 2

Well, that's it then. For another episode of the School of Law podcast from the University of Aberdeen. Hopefully you've enjoyed it. And if you have enjoyed the lesson, be sure to catch the next episode. Feel free to tell anyone who you think would enjoy it and give it a wee lesson. Subscribe and please feel free to leave a review as well as that really helps us get heard by an even wider audience.

00:42:03:21 - 00:42:13:23

Speaker 1

It really does. Absolutely, Lauren. Well, we'll be back soon. On behalf of Lorna, myself, Neil Wightman, many thanks for listening and we'll catch you on the next episode. Goodbye.