It's easy to be a bit amused about Kodak's new blockchain and cryptocurrency, the KodakOne . The old photography company is the classic case of a firm that failed to keep up with technological change .

But now Kodak is exploiting one of the most interesting characteristics of the blockchain (the technology behind Bitcoin) to reshape how we understand and manage intellectual property.

Just like Bitcoin demonstrated it was possible to have a digital currency that didn't require third parties (banks or governments) to validate transactions, KodakOne hints at a future where intellectual property works without the need for third parties to enforce property rights.

Blockchains are a system of decentralised, distributed ledgers (think of a spreadsheet or database that is held on a number of computers at once). Transactions are verified and then encrypted by the system itself.

Kodak's plan is to use the Ethereum blockchain to build a digital rights management platform for photographs. Photographers will register their photos on the KodakOne platform and buyers will purchase rights using the KodakCoin cryptocurrency.

The platform will provide cryptographic proof of ownership and monitor the web for infringement, offering an easy payment system for infringers to legitimise their use of photographs.

Read more: *Demystifying the blockchain: a basic user guide*

In one sense, KodakOne resembles one of the many supply chain (or "provenance")

applications for blockchain, which track goods and their inputs (think agricultural products or airplane parts
).

But photographs are purely digital assets. In a sense, what we're seeing is a new form of intellectual property.

In KodakCoin, the underlying asset – the thing that is being bought and sold, the thing that has the economic value – is no longer the photograph, *per se*. Rather, it's the entry on the global blockchain ledger. Control of that entry constitutes ownership of the asset.

KodakOne only really gets halfway to this idea. Like so many blockchain applications, the question is how this elegant system will interact with the messy real world. It's one thing to detect infringing uses of a photograph, it's quite another to enforce terrestrial copyright law on unco-operative infringers. And KodakOne is hardly the only firm working on digital asset management on a blockchain.

A new kind of intellectual property

But there's another, more pure example of what blockchains can do for intellectual property that is worth discussing – CryptoKitties .

CryptoKitties is a silly little blockchain game, but the economics are worth taking seriously. Players buy digital cats – cryptographically secure, decentralised, censor-proof digital cats – and breed them with each other. Each cat has a mix of rare and common attributes and the goal is to breed cats with the rarest, most-in-demand attributes.

That's the game. But in fact what CryptoKitties has invented is a new form of intellectual property. Each cat is a completely unique, entirely digital good. And it is completely, cryptographically secure. It can't be copied.

Usually the protection of intellectual property requires lawyers and courts. But with CryptoKitties,

the intellectual property protection is part of the asset itself – it's baked in.

This is what blockchains were invented to do. Before blockchains, digital goods could be easily duplicated. That's a great feature – unless you want to create digital money. Digital money won't work if everybody can just copy their money and spend it over and over again.

The creator of Bitcoin, known as Satoshi Nakamoto, solved this problem with Bitcoin's blockchain. Previous attempts to solve the double-spending problem had relied on trusted third parties like banks to validate transactions. Nakamoto managed to get the network to validate itself.

Read more: *Blockchain is useful for a lot more than just Bitcoin*

KodakOne (and CryptoKitties) show us that intellectual property has much the same problem as digital currency – and may have the same solution. There's no need for trusted third parties (governments) to enforce property rights. The blockchain does that for us.

Of course, there's a lot of work to be done before we see real benefits from this sort of blockchain-enhanced intellectual property. CryptoKitties is its own new form of intellectual property – but can we retrofit "traditional" cultural goods like photographs, music and movies onto the blockchain?

Digitisation has challenged the protection of intellectual property like never before. Cultural producers need to find some way to be paid for their work. This is the direction we should be looking.

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Read more http://theconversation.com/kodakone-could-be-the-start-of-a-new-kind-of-intellectual-property-89966