

The Future Impact of Cryptocurrencies & Blockchain Technologies

How can blockchain and cryptocurrency change how goods are produced, manufactured and delivered from the ground up

If you are just now entering this space, congratulations are in order! It doesn't even matter how or what reasons brought you here, just that you're here in the first place. You might be feeling overwhelmed, and that is very understandable. This space is teeming with hope, speculation, and FUD (Fear, Uncertainty & Doubt). The question on everyone's mind is "what can we do with these new cryptocurrencies and blockchain technologies?"

First, a whole lot of things. From changing the face of the retail industry, to eliminating certain industries completely like transportation, to reducing waste from the manufacturing industry, to making things like fraud and identity theft a thing of the past. The possibilities are really endless.

Cryptocurrencies truly have so much to offer this world. Even more so than just the standard model of Hodl. Hodl is a term derived from the misspelling of "hold". It refers to only buy-and-hold strategies in the cryptocurrency space, mostly those that rely solely on the law of [supply and demand](#).

So let's talk about the future! We will start with the elimination of the transportation industry, a severe reduction in manufacturers' waste while also changing the customer retail experience. Can things be done more efficiently? You bet they can! For starters, let us look at a normal everyday practice that relies heavily on the transportation industry giants such as, Amazon, FedEx, UPS, and USPS. To illustrate how crypto and blockchain can be used to disrupt industries from manufacturing to transportation to retail and logistics, I'm going to tell you a little story.

Here's the scenario in the retail landscape we all know and recognize

We have a customer who is a golfer, let's give them a name, Susan. Susan is looking for a new driver. Susan enters her favorite retail store, Dick's Sporting Goods. She meets with a sales associate and they go through the entire process of discussing what she is looking for to help her driving game.

They go through the fitting process and determine the golfer's best specs for game

improvement: a Callaway Big Bertha B21 driver. But Dick's Sporting Goods is completely out of stock on this particular golf club. This is where the sales associate informs our customer that they can order the golf club from Callaway Golf, at the specs that they determined earlier in the fitting, at no extra cost to Susan. There's a catch though: the process from start to finish will take two weeks (possibly longer if Callaway Golf is really behind on orders.)

Building the crypto and blockchain solution scenario

What if this entire process was replaced by cryptocurrencies and blockchain technologies. First, let's talk about what we need to make this new model possible. We need a fast, scalable, and decentralized blockchain network. It could have its own native currency, and there are ways around this if no such blockchain existed, but for simplicity, we will use the DigiByte blockchain. It has a native currency called Digibyte (DGB). This is a fork from Bitcoin in 2013. It's permissionless, fast, and is immutable. We also need two 3D printers. In a retail setting, we could absolutely have more than two 3D printers, but for this example we will only be needing two, one printer for the head of the golf club and the other one for printing the golf shaft.

We will pick up where the sales associate informs Susan that Dick's Sporting Goods is currently out of stock for that specific driver.

"Oh no! What am I going to do? I have a tournament in a few days and I have no driver." spoke a very unhappy Susan.

"No worries Miss Susan. We got you covered!" said the energetic sales associate. He eloquently asks if she has any Digibyte cryptocurrency. To which Susan replies "Yes!" because DigiByte is one of the most heavily adopted cryptocurrencies. Well, it's not (yet) but we will pretend for the sake of this example.

"Great!" the sales associate leads her to a 3D printer and asks her to open up her DigiByte wallet, she complies. The sales associate grabs the Apple iPad Pro that is on top of the machine. He gets online and goes to the Callaway Golf website, finds the driver and clicks the "buy" option, which immediately opens the specifications menu. The sales associate begins to fill in the required length, shaft flex, grip size, etc., all the things that he and Susan talked about in length from the driver fitting earlier.

When checking out, the total price is listed at USD\$534.99 (USD \$499.99 + sales tax). He clicks the "Buy with Crypto" button. A list menu pulls down, Bitcoin, Litecoin, XRP, and DigiByte. He selects DGB, the checkout menu adjusts the price from USD price to the same equal value in DGB. Currently, at the time of publication, DGB is trading just a little over \$0.04. To make this purchase now the price is 13,374.73 DGB.

The sales associate lets Susan know of the amount of DGB that she will need for the purchase. She shows the young man her wallet with 100,000 DGB, totaling \$4,000.00 USD. He clicks the confirm purchase button and a QR code pops up on the iPad Pro. She opens up the scan QR

code button in her DGB wallet and scans the code which automatically links her wallet to Callaway Golf's wallet, accepting DigiByte. After automatically linking the two wallets, a transaction list opens up showing the transaction for her to approve. She sees the amount of DGB she is spending and that amount is going to Callaway Golf for the new driver that she wants, clicks the "Accept" button and now a circle loading icon comes on her phone for almost five seconds. Wham, the transaction goes through! Her wallet updates its balance automatically and she received a receipt for the transaction in her wallet.

This receipt that she received is special, it has a particular QR code attached to it. It's different from the one she scanned earlier to link the wallets for the sale. This QR code has the details of the golf club that Susan has been fitted for with her exact specs. The sales associate asks Susan to open up that receipt that has that special QR code and to put her phone in front of the screen which is the 3D printer's scanner and its right on the front of the 3D printer. The printer makes a noise, it's a quick double-beep that notifies whomever around that the QR code was scanned successfully and the specs on that transaction were pulled up and loaded into the printer. Now both these printers kick into action.

The transaction is complete! Susan's new golf club will be printed into existence within the hour. Now you are probably wondering, "Wait, how does Dick's Sporting Goods get paid?" Great question and congrats to you for paying attention. The retail model will change significantly. All signs point to profit sharing as becoming the new standard as the B2B practice but there are some concerns that B2B goes by the way and all manufacturing brands convert to a B2C model, cutting out the middleman completely. Hold that thought till the end.

Susan turns to the sales associate and asks the question that this young man has heard too many times.

"Now what?"

"Your new Callaway Big Bertha B21 driver will be printed in about an hour. If you have any errands to run or if you rather want to look around. Just come back in an hour and your driver will be ready!"

How technology will reshape industries

Three important things were just eliminated, the manufacturer waste, the need for shipping goods, and that not so awkward moment when you sell something that you no longer have. Instead we gain a much faster, cleaner, efficient and immutable checkout experience due to having these newer technologies.

First, Callaway Golf did not even have to lift a finger in producing this driver. The manufacturing part of their business model—where they buy, receive, and process the goods that are required to make their golf clubs—is now in a five-foot square box located inside Dick's Sporting Goods.

Second, since there is no production on Callaway Golf's side in Carlsbad, CA, there is nothing to ship out. This means, you don't need to ship anything if there isn't anything to ship. Can you say goodbye to FedEx, Amazon, UPS, and USPS? More consumers are heavily relying on E-commerce to receive goods from places like Walmart, Amazon, Wayfair, Hello Fresh, and other big retailers. They often find their packages late, boxes in horrific condition, and things missing due to a tear or hole in the box. When this happens, they have to deal with customer service to try and get reimbursed or new items being sent out to replace the damaged ones.

Third, everything I just mentioned that could go wrong, the headaches that come from E-commerce and shipping, now go away! This means the customer is now much happier. They are getting everything they wanted, in absolute new condition, tailored to their specs with nothing missing! This is a win-win situation for all customers across the board.

How does the payment model work?

Now back to how Dick's Sporting Goods will get paid by Callaway Golf. It will be quite simple with really no new major updating software, websites or API's. The tech really for the most part exists now.

It will most likely take on some similar form of what we already have in place with the way companies get paid from major credit card companies. When Susan clicked the "Accept" button for her transaction to Callaway Golf, she also temporarily accepted, *well granted actually*, Callaway Golf's website to access her GPS location using her phone, which will become the Standard in every purchase. And not to worry, after the purchase clears or is added to the DigiByte Blockchain, those cookies will become obsolete. I guess a better way is to say they disappear, it will be in their code. Hence, no more access to her phone.

Structurally, when Susan gave them access by clicking the "Accept" button, her GPS coordinates got added with the rest of the information of the transaction. The information logged that would go into the block: the transaction (the agreed upon transactional price), her GPS coordinates, and all the specifications for the Golf Club: [shaft length, shaft flex, shaft torque, shaft diameter and taper length, grip size, loft, swing weight]. So now when this new block is added to the chain, Callaway Golf will do a profit share price to cover cost of goods plus whatever profit that is worked out or legally agreed by contract between Callaway and Dick's Sporting Goods.

This should be a new transaction most likely in some form of Stablecoin; such as Dai, USDC (United States Dollar Coin), Tether, but I'm hopeful that both parties would possibly agree to get/be paid in the same cryptocurrency that any transaction was made. So in this case Dick's Sporting Goods would be paid in DigiByte. It would provide getting the actual amount agreed.

Meaning that if this transaction happened in DGB, but Dick's has agreed in contract to only ever get reimbursed in Dai, then Callaway will take the actual DGB that is locked in value for the profit share percentage from per said contract. It would need to go through some sort of exchange, Uniswap for example, and make the swap from DGB to Dai.

If you have ever had the pleasure of doing a swap, I'm sure you've noticed that the dollar amount of your swap gets less on the return to your wallet. This is due to [slippage](#), the value price between the actual price at the exact moment of the swap taking place. Usually the bigger the amount the bigger the loss after the swap. This will become a problem for big retailers without a doubt. They will want to keep every hard dollar they can and I'm quite confident in the very near future that someone will address this problem so that big retailers feel more comfortable accepting this kind of payment.

Transformation, one industry at a time

All the above could be done for eyeglasses, clothes, cars, homes, hospital equipment (such as surgical equipment, oxygen tanks, gurneys). There are a whole bunch of possibilities where this type of model could and would work. The future is definitely exciting and I'm glad we get to be a part of it, together!