



Beyond the Memes- How One NFT is Changing the Post Student Experience



Have you ever been asked for an official copy of your diploma or certificate of course completion? Maybe the request is part of a requirement for future employment or admission to a program or professional organization? At this moment, the fate of your future is handed off to the responsiveness of another party — a university

registrar's office or a large consolidator, perhaps. You will be asked to provide your personal information (again), be subjected to multi-factor authentications, and the final injustice — a payment for something you have already earned — and perhaps paid thousands of dollars to obtain! Now you must wait by your inbox or mailbox, or worse, wait for a USPS or FedEx delivery.

I was thinking about this recently in connection with the Coursera course I teach on blockchain technology. It wasn't long before I realized that the answer was right in front of me, literally. Blockchain has this solved via non-transferable NFT's (Non-Fungible Tokens) that provide a simple way to access and share proof that you've completed a program. Like everything on blockchain, these tokens are immutable and transparent. Moreover, they provide a simple, straightforward way for students and schools to utilize blockchain technology to make life a bit less stressful. After all, I work in an engineering school, where everything we do is geared toward application of learning and building things. But if it was this straightforward, why hasn't it been adopted everywhere? After talking the idea over with a few people and hearing unanimous agreement that this was a constructive and disruptive moment for blockchain, we set to work building the processes necessary to hand you your future back.

The initial process required many approvals from leaders and administrators from the certifying entities, namely Duke University, and Coursera. Fortunately, I work with people who are used to my "unusual" requests, and they are all engaged to help me facilitate the first ever NFT certification of a Coursera-hosted course. This course

closely follows the blockchain course I teach to the Master of Engineering FinTech students and others at Duke.

As this was a real opportunity to demonstrate that Duke Engineering is eating its own cooking, I wanted to make sure that the token displayed the needed information, was dropped with no issues, and of course looked great, so I called in some of the smartest people I know within the Duke universe to assist with the process. They included Corbin Page and David Eiber of [Paymagic](#), an emerging payments and rewards tools for the crypto-economy.

After receiving the certificate design from the Duke Pratt School of Engineering team, I spoke with Corbin and David about how we would best go about implementing the idea. It was fairly straightforward until the question of whether or not to use Ethereum or an alternative, was raised. Since cost is a factor, the answer was to go with [Polygon](#), where students would still be able to view their NFTs on platforms like OpenSea or Coinbase. A smart contract was established to launch the NFT's that would represent the course Completion Certificate. It's important to note again that these are non-transferable (i.e., unlike other tokens these can't be traded). These were then sent to the student's individual wallet addresses, as a surprise. Since one of the first things that we do in class is construct virtual [MetaMask](#) wallets, which are used for a number of their assignments, I already had all of the addresses. You can view the transactions and Certificates at: [Certificate Program](#) and [Duke OpenSea Certificate](#). The smart contract address is 0x4f9fbb99a98846e859b13c5d04ed8b1f639f1756 on [Polygon viewable here](#).

Students received an email from me to check their wallets, after switching to Polygon, and they found their NFT's. Many have already shared these on social media sites (for those of you who might be wondering about previous students, they too have received their certificates as NFT's).

OK, this all sounds pretty good right, so what's the catch? Probably the biggest challenges will be that people may lose their passwords and recovery phrases, and as anyone familiar with blockchain knows, there is no help desk to help recover lost wallet access. Some networks (e.g. Ethereum) can be quite expensive to use for the deployment of the NFT's. And lastly, as this is a very new convention, getting buy-in can be a long process.

Hopefully this inspires other institutions to look at this alternative or in parallel with traditional diploma or certificate distribution. NFT's can be used to bring in students' engagement from several different areas, creative designs for example? For schools these digital diploma's and certificates are an interesting way to stay front and center with alumni and their networks. If you have questions, don't hesitate to reach out to me, I can't imagine any school or student not wanting to at least consider this application of new technology.

Authored by

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