Black Blockchain: The Future of Black Studies and Blockchain

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Lt. Nyota Uhura, a fictional character performed by actress Nichelle Nichols, is a much beloved figure of the *Star Trek* universe. MSNBC commentator Jason Johnson features her *Ebony Magazine* cover in his virtual background. CBS' *All Rise* fictional character, Judge Lola Carmichael, furiously rebuked another judge who removed Uhura's picture from her office. Former President Barack Obama confessed to a youthful crush, and *Star Trek* fan, Whoopi Goldberg, joined the second iteration, *Star Trek: Next Generation*, because Nichols characterized for Goldberg a black woman on television who could play someone other than a maid.

The attachment to Lt. Uhura epitomizes Black possibility in spite of a subjugated past. Scholars define this interface of imagined Black future and technology as Afro-futurism. While Afro-futurism exists mainly as a cultural field of study, futurism permeates Black daily life, in sometimes dark, problematic ways. Recent works like *Coded Bias* expose how new technologies, like AI and big data, increase surveillance, reinforce racist notions of Black criminality, and apply discriminatory treatment in Black patient care.

Scholarly attention rightfully centers on the negative impact of futuristic machinery, but these technologies can either empower or suppress. Blockchain embodies this tech duality and concomitantly stores within it the key to self-determination, sovereign identity, and community empowerment while divergently acting as an instrument for oppression. How Black Studies adopts blockchain can determine black people's political, social, cultural, and economic futures. But without the philosophical intervention of Black Studies, blockchain's potential for people power becomes subjugated to individuals, entities, and institutions insensitive to the issues impacting the black com-

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munity. For these reasons, there can be no blockchain without Black Studies, and no Black Studies that can ignore blockchain.

Black Futures and Technology

Few understand blockchain or the technological processes by which it came to be created. Undeniably, blockchain is a frustrating mixed bag of "smart contracts," "crypto currency," "NFTs," "interoperability," and other terms that obscure more than reveal. However, technical expertise is not the sole determining factor for engagement with blockchain, nor is Black engagement with futuristic technology antithetical to the Black experience. Many scholars rightfully argue that Afro-futurism can act to insert the cultural, historical Black self into tomorrow. Or, it can assert the future as a site of survival, and in doing so make it a tool of liberation.[1]

Alternatively, the future can collide into Black people extending real world racist belief systems into digital outcomes that hamper and damage Black freedoms. Scholar Ruha Benjamin examines this issue by merging Critical Race Theory and technology in what she terms "race critical code studies." Benjamin explains that "technological benevolence" conceives futuristic machinery as an unbiased solution to societal conflict, and yet these efforts to address bias ultimately "end up reinforcing the New Jim Code."[2] The solution is to "demand that tech designers and decision-makers become accountable stewards of technology."[3] Black digital humanists suggest a similar approach, insisting that the presence of blackness can change the landscape of technology.[4]

Yet these mediations are not enough. The future is a contestation of power, and the fight for power requires our active presence and vigorous implementation of self-determination.[5] Within this chaos, Black Studies is best poised to enter the bedeviled crossroads by bridging blockchain's meaning for Black people and Black people's import for blockchain. As participatory players, scholars of the Black experience can direct technology for Black people's emancipation.

Blockchain in Black Studies: Sovereignty and People Power

Entre into blockchain is much more than a gesture toward blackness in the future. Blockchain has the ability to incorporate community defined concepts of Black identity and peoplehood within computational structures. This is not just an abstract notion. Heir property is one significant area where the Black community can insist that self-determination merges with blockchain in a real-world application that helps preserve Black land.

According to *ProPublica*, the U.S. Department of Agriculture lists heir property as the leading impetus for Black involuntary land loss. Black owners distrusted southern courts and circumvented estate probate by allotting ownership interest to each descendent. However, this created multiple issues wherein one individual could upend family ownership through the sale of their portion—despite not paying taxes on the property nor having lived on the land.

Local magistrates and police, particularly in small towns, also nefariously aid in breaking up land for developers seeking to seize the whole property.

Heir land loss is a difficult issue to surmount given distrust of the state apparatus, unofficial or undocumented land relationship, and unspecific data on financially responsible parties. *ProPublica*'s most effective solution was legislation that accepted alternative evidence of ownership for heir-based wills.

Blockchain is a useful apparatus for this kind of community determined identity. In fact, Black communities can borrow from existing efforts that use blockchain as a community-based/sovereign identity tool. The land registry and Rohingya refugee blockchain projects created models that countered state mistrust and government identity documentation. In both the Republic of Georgia and India, residents complained about fraudulent land titles. Officials in both countries introduced blockchain as a method "to track land ownership history over time, and do verified land titling registration with background checks on who paid [the property] taxes." Meanwhile, the Rohingya blockchain project embraced alternatives to government credentials when Myanmar violently ousted their people without identification, thus inhibiting entry to other countries. These digital identity cards employed self-sovereign identity, a system that uses multiple forms of documentation issued and controlled by community non-profits.

In Black heir property, your neighbors, local church or organizational networks, or regular tax payments can all attest to your heir standing. These testaments document years of physical possession that serve to substantiate ownership. Most importantly, self-sovereign identity allows for Black organizations to magistrate identity as a trusted source over the state. Thus, an entity like Federation of Southern Cooperatives can use the collective documentation of the Black community to confirm identity and provide evidence in disputes over land.

Self-sovereignty is not just limited to identity. Its foundations lay in community control of information particularly in cases where the parties are not trusted. Blockchain technology similarly assumes distrust between parties, which is why it is both anonymous (identity by code versus personal name) and yet open for all to see (the public can chart each transaction or data block).

As such, self-sovereignty and blockchain particularly operate well in relation to law enforcement where Black confidence is all but absent. Blockchain companies primarily address problems of policing as an information share and system monitoring issue. Authors Ishwarlal Hingorani, Rushabh Khara, Deepika Pomendkar, and Nataasha Raul originally proposed a blockchain-based interoperable platform that managed criminal complaints through two ends. On one side, victims input information through a mobile application. Through the other, police supervisors assign cases and monitor development. The decentralized (openly stored among multiple parties) nature of blockchain then allowed various parties (police, victims, lawyers) to input, monitor, and share information.

Police watchdog groups operating a similar blockchain project can monitor complaints against police misconduct. Victims of police harassment input data through a mobile or other digital device; Pro-bono legal agencies, educational institutions, or activist groups assign advocates; and all parties track the complaint from start to finish. Hingorani, et al. note that police supervisors can also allocate scores based upon case development. Similarly, police departments would receive scores grounded on how well and quickly they address wrongdoing. This allows for targeted protest against police departments who prove recalcitrant. Minimally, this halts police complaints from being buried.

The significance of this kind of blockchain project is staggering. Black Studies programs in collaboration with social justice groups could track police brutality reports across local agencies and state lines, creating a peer-to-peer network that follows individual police or departments with a history of recurring offenses. Additionally, the anonymous nature of the process hinders potential harassment, and reverses surveillance. The result is a Black future where the community 1.) collects needed data; 2.) controls an open source of qualitative and quantitative information on police brutality cases; and 3.) utilizes Black experience and information control to hold municipalities and law enforcement accountable.

In both cases—land preservation and police data control—the black community uses blockchain technology as cyber resistance—a gesture to the very origins of Black Studies and Afro-futurism.

Black Studies in Blockchain: We Don't Trust You Either

Black Studies originated from a 1960s movement spirit that sought to meld community and academic learning in a reciprocal and symbiotic relationship. It exists to bridge academic knowledge spaces with Black communities in an ethical, collective, community-based "call and response" that empowers and improves Black lives. It also reverses this link to incorporate Black epistemology into institutional functions and sensibilities.

Black Studies' tremendous import for blockchain rests in structuring an ethical framework and altering the theoretical underpinnings that define blockchain's operation. Hyper-individuality has mainly guided perceptions about blockchain, along with the belief that the technology exists to allow individuals to circumvent financial institutions and governments. Although this is somewhat helpful, Black communities partially depend on the state to overcome oppression from institutions and individuals. Instead, blockchain is better understood for the Black community as a site of collective action and accountability that allows for people power with/without the context of the state.

Absent any regulation or rehabilitation in blockchain's ideological bent, the technology will disrupt or remove our few protections by elevating a hidden consensus over participatory democracy. Blockchain depends heavily on the idea of decentralization. However, decentralization does not necessarily translate to inclusion or community participation. Blockchain must reflect a

similar "call and response" protocol embodied by Black Studies philosophy in order to sustain trust, particularly with vulnerable communities. Conversation with community keeps the technology honest.

Minimally, Black Studies can help blockchain confront the reality that technology is not necessarily tantamount to equity, disabusing blockchain enthusiasts of "technology benevolence." Blockchain voting is a particularly notorious reflection of how blockchain ignores the simple political realities effecting the Black community; and worse, ignores how it too can be a source of distrust.

Initially, blockchain voting appeared as a solution to nations with histories of election irregularities. However, it expanded to include democratic nations as well. Experimentations are underway in Denmark, Estonia, Norway, Sierra Leone, Russia, Australia, South Korea, Thailand, India, and in parts of the United States.

A drum beat among tech circles extol the virtues of blockchain voting as the solution to America's election system "failures." Blockchain purportedly offers equitable, secure, easy access to voting via digital election at assigned polling locations or personally accessed equipment like mobile phones. Others argue differently and challenge assertions about the technology's safety. MIT and Common Cause both insisted that blockchain voting still suffered from software security issues.

Black Studies scholars would also question these technologies. One can easily imagine state legislatures assigning voting codes by location. How then might that impact "blind" voting or facilitate disenfranchisement? Further, Blockchain provides no physical documentation and inhibits individual efforts to self-affirm (take a picture) of voting decisions. Third, not everyone has a phone or computer. Public locations with shared devices (i.e. libraries) prohibit private and secure voting. Plus, technology based voting assumes monolithic digital literacy. Finally, digital poll locations are no less problematic than paper-based polls as control in many states would reside with parties who intend to prevent Black voting.

In short, trustless blockchain technology still depends on assumed trusted partners who the Black community does not trust. And therein lay the reasons why blockchain must shift to incorporate the ideologies that drive Black Studies. When blockchain advocates ignore how technology harms vulnerable communities, the very premise perpetuates white supremacy and inequity. As a result, blockchain technology ironically sets itself on a track to become the very thing it purports to challenge—a source not to be trusted.

Conclusion

After a year on *Star Trek*, Nichols decided to resign her position as Lt. Nyota Uhura. Bored with playing a peripheral character, the actress determined to depart the show. She'd also endured enough racism with the Desilu/Paramount company to end her time with *Star Trek*.

"Having grown up as I did, I could not tolerate racist comments and actions.

I'd seen enough to know what people really meant, regardless of how they tried to disguise it… the evil of most racist actions and comments is in their veiled insidiousness."[6]

The following day, a chance encounter with Martin Luther King, Jr. altered her course. King, upset about her resignation, intoned "For the first time, the world sees us as we should be seen, as equals, as intelligent people…."[7] In a similar spirit, Scholar andré m. carrington reflected on Nichols significance to the Black community, insisting that we "envision Nyota Uhura as the voice and the listening ear of our race… as a document of our possibilities, rather than as a document of our limitations."[8]

Yet, Uhura's value is more than her symbolic meaning as a character. As a Black woman, Nichols embeds within Uhura the nexus of our past and future. Beyond Uhura, Nichols' reflected our Black epistemology, culture, and history—a woman who defined herself as the granddaughter of a rebellious slave, who lived a life surrounded by Black musical greats, and whose book is dedicated to her Kwanzaa Sisters—a community of Black women in Hollywood who celebrated—in sisterhood—our culture. She held in her hands the power to frame our future identity by embodying the full expression of blackness in technology and the challenge it poses to racism.

In the spirit of Uhura and Nichols, Black Studies must stretch itself to intertwine with technologies that impact our future possibilities. It is philosophically obligated to "translate" blockchain technology, document its prospects or limitations, and bend it to empower Black survival and self-determination. Blockchain is simultaneously duty bound, based on its own notion of equality, to incorporate principles receptive to community-based accountability. Real-world interaction must redefine blockchain, or its future will be filled with false promises of inclusiveness. And while blockchain enthusiasts may very well ignore the Black community, the same cannot be said for us. Black Studies has to intervene in this technology to ensure blockchain serves our liberation or face the inevitable dangers of yet another digital mechanism that acts against us, and perpetuates our unfreedom.

Notes

1. For sample works on the liberatory aspects of Afro-futurism see, C. Brandan Ogbunu, "How Afrofuturism Can Help the World Mend," *Wired Magazine* (July 15, 2020), accessed August 5, 2021 https://www.wired.com/story/how-afrofuturism-can-help-the-world-mend/; Elizabeth C. Hamilton, "Afrofuturism and the Technologies of Survival," *African Arts* (50:4, 2017): 18–23; Jonita Davis, "How Black Women Are Reshaping Afrofuturism," *Yes Magazine* (April 24, 2020) https://www.yesmagazine.org/social-justice/2020/04/24/how-black-women-are-reshaping-afrofuturism. The term was first coined by Mark Dery. Mark Dery, "Black to the Future: Interviews with Samuel R. Delany, Greg Tate, and Tricia Rose," in Mark Dery, ed. *Flame Wars* (New York: Duke University Press, 1994), 179-222.

2. Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code*, (Cambridge, UK: Polity Press, 2019), pg. 96.

3. Benjamin, *Race After Technology*, pg. 121

4. Kalí Tal, "Life Behind the Screen," *Wired*, October 1, 1996, https://www.wired.com/1996/10/screen/; Tara McPherson, "Why Are the Digital Humanities So White? Or Think-

ing the History of Race and Computation," in *Debates in the Digital Humanities*, eds. Matthew Gold and Lauren Klein (Minneapolis: University of Minnesota Press, 2012), https://dhdebates.gc.cuny.edu/read/untitled-88c11800-9446-469b-a3be-3fdb36bfbd1e/section/20df8acd-9ab9-4f35-8a5d-e91aa5f4a0ea#ch09; Domenico Fiormonte, "Toward A Cultural Critique of Digital Humanities," in *Debates in the Digital Humanities 2016*, eds. Matthew Gold and Lauren Klein (Minneapolis: University of Minnesota Press, 2016), https://dhdebates.gc.cuny.edu/read/untitled/section/5cac8409-e521-4349-ab03-f341a5359a34#ch35; Kimberly Gallon, "Making a Case for the Black Digital Humanities," in *Debates in the Digital Humanities* 2016, ed. Matthew Gold and Lauren Klein (Minneapolis: University of Minnesota Press, 2016); https://dhdebates.gc.cuny.edu/read/untitled/section/fa10e2e1-0c3d-4519-a958-d823aac989eb#ch04; Aleia M. Brown & Joshua Crutchfield, "Black Scholars Matter: #Blk-Twitterstorians Building a Digital Community," *The Black Scholar*, 47:3 (July 2017): 45-55; Marisa Parham, "The Digital in the Humanities: An Interview with Marisa Parham," interview by Melissa Dinsman, *Los Angeles Review of Books*, May 19, 2016, transcription, https://lareviewofbooks.org/article/digital-humanities-interview-marisa-parham/.

5. Nishani Frazier, Hilary Green, and Christy Hyman provides further exploration on black digital power in their forthcoming joint essay for *Debates in Digital Humanities*.

6. Nichelle Nichols, *Beyond Uhura: Star Trek and Other Memories* (G. P. Putnam Sons: New York, 1994), pg. 161

7. Nichols, *Beyond Uhura*, 164.

8. andré m. carrington, *Speculative Blackness: The Future of Race in Science Fiction* (University of Minnesota Press, 2016), pg. 87.