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Perspective

Blockchain humanitarianism and crypto-colonialism

Olivier Jutel[1,*]
[1]University of Otago, Dunedin, New Zealand
*Correspondence: olivier.jutel@otago.ac.nz
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THE BIGGER PICTURE A critical political economy approach to new technologies is key to discerning suitable use cases from highly ideological projects. This perspective considers the emergence of blockchain and cryptocurrencies in the aid sector. The ability of blockchain enthusiasts to experiment with governance and payment platforms in the developing world is a result of the ascendant private-public partnership (PPP) model in the non-governmental organization (NGO) sector, which has increasingly aligned itself with Silicon Valley's cultural values. This overview of flagship blockchain projects finds end-user solutions and outcomes that principally serve a public-relations (PR) function for the broader crypto-economy and extend colonial legacies of experimentation in the developing world. This paper argues that blockchain humanitarianism is inseparable from crypto-colonialism as the developers, platforms, and rhetoric are interchangeable. A minimal requirement for an ethically sound blockchain humanitarian project would involve acknowledging the risk and ideological extremism of crypto, the importance of developing world sovereignty, and the legacies of colonialism through technological abstraction. The ethical failings of the PPP model in this case should be read alongside the scholarship of Madianou and Nothias and point to the need for developing world platform self-determination analogous to the Non-Aligned Movement's call for a New World Information and Communication Order.

SUMMARY

The humanitarian sector has emerged as a powerful mechanism of legitimation for blockchain technology. Platform developers in the aid sector have been eager to showcase the promise of decentralization and encrypted blockchain data as the inheritance of the world's poor and developing nations. This article claims that humanitarian blockchain projects are inextricably linked to the politics of the crypto-economy, proprietary platforms, and a class of solutionists championing Silicon Valley's cultural values. Blockchain humanitarianism has emerged through a private-public partnership (PPP) model in the non-governmental organization (NGO) sector that embraces tech disruption and innovation. Ethically sound blockchain humanitarian projects are precluded by the inherent obscurantism of the technology, the inability to transpose blockchain's governance logic in the social realm, and inextricable ties to the political economy of cryptocurrencies. Projects in the developing world have thus embodied a colonial logic of techno-experimentation for platform developers and imbricate the NGO sector into the PR logic of blockchain solutionism.

INTRODUCTION

In May, blockchain visionary and Ethereum creator Vitalik Buterin was lauded for making "one of the largest individual philanthropic contributions ever";[1] a 1.5 billion USD donation of cryptocurrency toward India's battle with COVID-19. It was a gesture demonstrative of the legitimacy shell-game that enmeshes crypto-speculators, blockchain humanitarians, and techno-solutionist boosters. Buterin gifted the India Covid-Crypto relief fund an assortment of cryptocurrencies including 50 trillion Shiba Inu coins (SHIBs). His possession of over $1 billion USD in SHIBs was a result of the coin's creator, the pseudonymous Ryoshi, gifting Buterin a 50% stake in SHIB. As a meme coin derived from the more well-known Dogecoin (The co-founder of Dogecoin Jackson Palmer has recently denounced his creation and the crypto-economy at large as "right-wing, hyper-capitalist technology".),[2] SHIB and Buterin are seemingly evincing a social proof of crypto's power and humanitarian idealism, no matter how risible this insular subculture. This gesture of largesse also attempts to create a payment infrastructure to work around an anticipated prohibition of cryptocurrencies in India. The donation also ensures a long stake and increased liquidity in SHIB as the founder of the India Covid-Crypto relief fund Sandeep Nailwal has pledged not to implode the currency.[3] What is consistent with the humanitarian blockchain paradigm is a wedding of solutionist idealism with efforts

to undermine the developing world's ability to regulate this radical technology, a concern for media hype and PR triumphalism over long-standing impacts, and the inseparability of blockchain technology from the speculative economic logic of cryptocurrencies.

This paper seeks to contextualize the emergence of blockchain technology within the humanitarian sector as a product of the broader political economy of cryptocurrencies and blockchain platforms. Drawing on my own work in the Pacific[4] and a brief outline of blockchain humanitarian applications and principles, I argue that these projects advance blockchain control and the crypto-economy through the guise of humanitarianism. The significance of this is that the people and economies of the developing world have become testing grounds for technologies that undermine the independence of developing world countries, continue colonial legacies of value extraction, and contribute to the PR hype that is central to inflating cryptocurrencies. Blockchain white papers and project reports consistently skirt the questions of risk, technological and political suitability, and notions of end-user empowerment that are context specific.

I turn first to blockchain's "treacherous vocabulary"[5] in arguing that enthusiasts do not promote specific use cases so much as the idea of blockchain as a new universal metaphor for our networked future. Blockchain is thus a "digital teleology"[6] or universalist narrative premised on capturing all forms of social value as immutable data. The claims to algorithmic governance and pure mediation makes this technology obscurantist and difficult to untangle from rhetoric and ideology. Robert Herian describes this as "the psycho-politics of blockchain" in which a fear of the social and pathological distrust of the other is overcome through this universal technological metaphor.[7] He writes that this technological faith is "replete with types of religiosity and crytophoric symbolization that were once the preserve of spiritual authorities but now intermingle economic and political power."[7] It is in this vein that Joe Lubin, founder of the blockchain startup incubator ConsenSys, has described Buterin as "a genius alien that [has] arrived on this planet to deliver the sacrosanct gift of decentralization."[8]

The presence of blockchain in the humanitarian sector is a result of a neoliberal emphasis on public-private partnerships, audit and procurement efficiencies, and the diminished role of the developing world state in social provision. Neoliberalism is a contested concept but can be broadly understood as the privileging of the market and price signals over the public sector. Blockchain advocates claim both the perfection of this market logic through the tokenization of all value and a transcendence of the state with concepts such as web3 or the metaverse. What is characteristic about projects such as the World Food Program's *Building Blocks* and efforts in self-sovereign identity (SSI) is a hedging on future use cases and the assumption that more services will be absorbed by blockchain. While blockchain humanitarian use cases might be modest in scale, rhetorically they are essential in promoting the cultural values of Silicon Valley. Experiments in disaster relief, digital identity, and governance may burnish the innovation credibility of aid agencies or generate media hype for a particular blockchain. In this way, humanitarian projects are inextricably linked to the grandiose pronouncements and speculation of the broader crypto-economy from El Salvador to Facebook's Libra. In the case of Vanuatu, Oxfam's flagship blockchain project operates alongside the most dubious elements of crypto and against government attempts to regulate in the public interest. Beyond experimentation in the humanitarian sector, this technology has enabled neocolonial land grabs and forms of platform control that seek to impose blockchain as law in the developing world.

AN OBSCURANTIST PARADIGM

The central premise of blockchain technology is that the production of encrypted, distributed, and immutable data is a universal governance principle capable of solving all manner of social issues. The digital ledger created by the Bitcoin blockchain serves as the progenitor of this ideal. If one can cast aside the staggering environmental impact, the failure of Bitcoin to function for its purported purpose as money and the advent of a crypto-oligarchy, or crypto "Whales," more fraudulent than the financial system it intended to replace, then it can be said that the Bitcoin blockchain functions well. (One of the more stunning examples of the crypto economy's failure is the stablecoin Tether which was founded by Bitcoin Foundation president Brock Pierce. In attempting to address crypto's price stability problem Tether issues coins that it claims are backed by the equivalent USD, allowing users to lock in prices for crypto transactions. In practice the issuance of $62 billion USD in Tether has been a key driver in the surge of Bitcoin in 2020 and is the principle source of crypto liquidity. An investigation by the New York Attorney General's office has forced Tether to report that only 2.9% of its reserves are cash creating an excessive leverage situation worse than Lehman Brothers.[9]) Bitcoin miners are economically incentivized to create the immutable record of every bitcoin transaction through the energy intensive encryption protocol referred to as "Proof of Work." The entirety of this universe is well-represented by the blockchain up until the point a crypto-exchange is hacked or a fallout within the community leads to a "fork" in the blockchain. While a narrow technological success, bitcoin and blockchain are better thought of as "politics masquerading as technology."[10] The ideal of subjects enriched by a God vista of data and freed from mediating institutions remains the last utopian narrative of the digital in the current "Techlash." For the converted, sending Dogecoin "to the moon" or other meme-fueled speculative rushes into crypto functions as a social proof of blockchain's revolutionary status.

These ideals have migrated to governance platforms through Buterin's Ethereum blockchain. Buterin's innovation was to allow any developer to launch other coins or digital applications on Ethereum. While this has largely meant the proliferation of crypto pump-and-dump schemes, the dream of smart contracts, digital autonomous organizations, and "a technical agency separate from the messiness of society and the economy" [11] resides in Ethereum. Ethereum co-founder Joe Lubin is the emissary of blockchain governance, having created the blockchain company and start-up incubator ConsenSys. Lubin professes faith in a flourishing of human creativity through the blockchain "tokenization of everything."[12] Behind the cyber-utopian rhetoric of disintermediation, decentralization and SSI are problems associated with the highly mutable nature of blockchain values and language. Blockchain is a sectarian space with rival platforms and communities vying to become the

standard bearer. A lack of standardization means competing factions are often clear about the shortcomings of a rival blockchain not living up to the principles of "Satoshi's Vision." (Of note here is BSV or Bitcoin Satoshi Vision which was a fork from the Bitcoin blockchain in 2018 ostensibly aimed at scaling blockchain with larger blocks of data. Its founder Craig Wright has claimed to be Bitcoin's creator, the anonymous Satoshi Nakomoto, which provoked what is known as the "Bitcoin civil war.") Attempting to transpose algorithmic consensus protocols onto governance questions that exceed the discreet units and transactions of cryptocurrencies means that the blockchain metaphor is highly contested and open to competing interpretations. Blockchain can be thought of as an obscurantist paradigm in which a purity of purpose overrides the necessity for design grounded in an understanding of existing human systems.

The problems with implementation become self-evident in the need for a less wasteful consensus algorithm. Where Bitcoin rewards computational power and energy consumption, Ethereum's Proof of Stake and Proof of Authority bestow upon coin/token holders the authority to validate transactions. This represents a formalization of the centralized class power that undergirds blockchain. One can make abstract arguments about staking and tokenizing different forms of value, but the power of Whales and platform developers trumps any notion of a blockchain-decentralized community. This proposed alternative to the environmental cost of Proof of Work has not scaled and works only within private, centralized blockchains. Buterin's much-touted Ethereum 2.0 remains "18 months away," a horizon that David Gerard points out has been invoked consistently since 2014.[13] That does not stop blockchain enthusiasts from making claims to immutable truth often by lobbying governments to lend their power and legal imprimatur. From El Salvador's recognition of crypto as legal tender, Arizona's Electronic Transaction Act declaring blockchain "uncensored truth,"[5] or the various memorandums of understanding (MOUs) signed between developing world countries and developers; this grand technology of disintermediation attempts to reconcile its contradictions through the power and legal imprimatur of the state, NGOs, and supranational institutions.

BLOCKCHAIN HUMANITARIANISM AND NEOLIBERAL GOVERNANCE

Blockchain humanitarian projects and partnerships with aid agencies have been a critical means of conferring legitimacy upon the claims of blockchain boosters. The technology's emergence in this space is symptomatic of a neoliberal aid model that embraces PPPs, touts digital technologies under the rubric of efficiency, and creates competition incentives for project funding.[14] Conceptions of ethical best practices for blockchain and other emerging technologies operate within these core principles of competitive procurement, audit culture, and transparency. In addition to these governance principles, digital technologies are also synonymous with the rhetoric of individual empowerment and the ability to "correct the asymmetries on which humanitarianism is based."[14] Blockchain advocates have positioned their projects as responsive to these imperatives and the humanitarian ethical best practices of "humanity, neutrality, impartiality, independence … [and] dignity."[15] Furthermore, blockchain's transformational power is seen going beyond moribund and unresponsive bureaucracies, whether for the developing world state or traditional aid. A report from the Overseas Development Institute, a European tech-humanitarian advocacy group, claims that the problems with inequities in aid lie in too limited an application of blockchain. This is a problem of blockchain projects "adopt[ing] a reformative, rather than transformative, approach … reproducing many of the underlying power dynamics, hierarchical structures, funding flows, and deployment strategies that already exist in traditional humanitarianism."[16] Blockchain thus represents the height of the market-led neoliberal approach to the development sector while presenting itself as a transcendent technology of empowerment.

The most high-profile application of blockchain in this manner is the World Food Program's (WFP) *Building Blocks*. It is a project hatched in the WFP's Innovation Accelerator that embraces the PPP model and Silicon Valley mantras in its branding: "Innovation to #DisruptHunger."[17] The program centers on an Ethereum software platform for cash aid developed inside a Syrian refugee camp and is the "largest implementation of blockchain technology for humanitarian aid in the world."[18] Recipients submit to a retinal scan, which functions as a unique digital identity analogous to a bitcoin wallet from which they can access a balance and make and receive payments. I will return to the ethical questions of biometrics and digital identity, but first, the contours of the blockchain are notable. As a private and permissioned system, this is the epitome of a database masquerading as a blockchain. There is no mining or consensus algorithm, and by the WFP's own admission, scaling into an actual blockchain remains a speculative horizon dependent on the participation of other institutions. UN Women has launched a pilot on Building Blocks and concludes the unrealized potential of blockchain serves "as a stepping-stone towards broader collaboration within the humanitarian cash ecosystem."[19] In this way, aid recipients are not the liberated subjects of blockchain so much as the test subjects for enterprise software that fits the innovation rubric. The watchword of innovation pushes the ethical premises of tech-humanitarianism and PPPs to absurdity in the case of the WFP's partnership with the CIA-funded American national security contractor Palantir, notorious for its lack of transparency.[20] Thus, blockchain's governance ideal of immutable data creates technological affordances to entrenched geopolitical interests, bureaucratic intermediaries, and the shadowy world of private intelligence to survey and intervene in conflict zones and the developing world.

Despite these shortcomings, the aid sector continues to champion one of the more grandiose ideas of blockchain, SSI. SSI has been the central metaphor of the blockchain-liberated subject immersed in web3, able to leave the state and mediating institutions behind. Blockchain and SSI have figured prominently among the solutions for digital identity in the developing world despite being "a flexible and ambiguous concept."[21] What the scaling up and integration of projects like Building Blocks promise is a flexible governance system that can use algorithmic trust as a workaround to perceived developing world dysfunction or institutional weakness. Refugees are seen as the chief beneficiaries of a system of portable identity, stored on the blockchain, that includes biometrics, official documents, and social media data. As Joe Lubin puts it in explicitly cyber-libertarian terms,

the self-sovereign is "less enthralled to their governments and less subject to adverse situations … if someone is ejected from their country … they can reconstitute their life."[22] This narrative of digital refuge has been invoked by crypto-advocates with the recent American withdrawal from Kabul resulting in Afghans "embark[ing] on an arduous and dangerous escape" with Bitcoin allowing the "transfer [of] whatever wealth they have across borders." (The champion of blockchain in Afghanistan and the subject of this Coin Desk article is Roya Mahboob. Mahboob has been seen as an exemplary figure of private sector techno-humanitarianism and was named to the TIME 100, with an entry written by Sheryl Sandberg, for her championing of women's digital education. She is also an ambassador for the Global Blockchain Business Council (GBBC) and coach of the Afghan women's robotics team. Her team's success in Estonia "was in part paid for with a bitcoin award that Mahboob had earned earlier that year at the annual Blockchain Summit on Necker Island." The role of Richard Branson and the politics of the GBBC's blockchain humanitarianism will be discussed further along.)[23] Circumventing the developing world state through individual digital rights may represent mobility for some, while for others it will mean the ability of the global North to replace universal rights with digital risk assessment and the "segregation of the global population into relatively closed groups of varying value."[24] The ongoing discussions around non-proprietary standards for SSI, on or off chain functionality, does little to change the contours of a tech-humanitarianism that allows blockchain developers to extract value from the global South.

SOLUTIONISM, PR, AND THE AID SECTOR

Blockchain developers are to able take advantage of the most ethically suspect aspects of the PPP aid model through maximalist rhetoric and the PR logic that bind crypto and blockchain humanitarianism. The claims of crypto and blockchain advocates are interchangeable as a universal governance infrastructure that lowers and equalizes the cost of financial and digital inclusion. The WFP conflate crypto and blockchain humanitarianism in citing among their press clippings for Building Blocks the article "Transforming the Social Sector: Bitcoin and Blockchain for Good."[25] With a seeming critique of financial elitism, advocates have presented crypto as a progressive and humanitarian cause with the rallying cry of "banking the unbanked." Blockchain's public relations and institutional apparatuses, whether the Bitcoin Foundation, Global Blockchain Business Council, or the MIT Media Lab Digital Currency Initiative, emphasize this notion that the principle beneficiaries of decentralization will be the world's poor. When Facebook announced Libra (now Diem), the digital payment system nominally backed by a blockchain, the promotional materials offered visually lush representations of the developing world and the promise of inviting everybody "to the global economy with the same financial opportunities."[26] In more flamboyant terms, the director Spike Lee, in his video for CoinCloud entitled "Old Money is Out, New Money is in," offers a funk-infused celebration of diversity and bitcoin ATMs. He describes crypto as "positive, inclusive, fluid, strong, culturally rich"[27] in contrast to Fiat currency's exploitative character. The language of rebellion, iconoclasm, and anarcho-capitalism are never far from the surface even in the policy documents of Oxfam that describe cryptocurrencies as "retalia[tion]" for the financial crisis "with a digital currency believed to be impervious to unpredictable monetary policies or political influence."[28]

The intertwining of crypto's PR logic and notions of economic development, social justice, and humanitarianism in blockchain discourse owes to its status as a "techno-solution" [29] par excellence. Solutionism is the view that human systems can and should be perfected through the mandates of computation and the privileged class of technologists, programmers, and tech-capitalists who wield these universal skills. In the case of blockchain, data encryption and decentralization are universal principles that can solve human governance systems through self-executing code. There is no better proving ground for blockchain than the aid and NGO sectors, which increasingly avail themselves to solutionist experimentation through the PPP model. A combination of platform "philanthropy"[30] and the interventions of the US State Department with initiatives such as "Civil Society 2.0" and "Tech Camp"[31] are crucial in creating a vision of social empowerment and transformation through Silicon Valley platforms. Hackathons, solutionist innovation, and performative entrepreneurialism have become ideals in this space, which encourages a blurring of boundaries between the goals of NGOs and platform developers. Developers are able to access funding streams for projects that boost the humanitarian cred of platforms and generate PR around potential proof of concept, while the embrace of solutionism for NGO workers may serve as a "rehearsal for future employment, partnerships, or investments."[32]

Oxfam's "Unblocked Cash" disaster relief blockchain is exemplary of this NGO solutionism. The program saw the launch of an "Oxlabs" innovation hub, which, like WFP's Innovation Accelerator, is styled on the values of Silicon Valley disruption and bringing together developers such as Sempo and ConsenSys. Oxfam's project leader Sandra Uwtange Hart exemplifies the fluidity of PPP and solutionist space, serving as an ambassador for the international advocacy group the Global Blockchain Business Council before becoming the CEO for Emerging Impact, a consultancy firm centered on decentralized financial services (DeFi) for the developing world. DeFi is a radical vision of a crypto financial system based on Ethereum applications and contracts, which allows participants to loan crypto and access credit and investments with astoundingly high interest rates. Key safeguards from traditional finance such as deposit insurance and know-your-customer rules do not apply, and DeFi systems are "plagued by hacks, fraud"[33] and account freezes. Presenting this as a solution to the unbanked of the developing world is highly ideological, presents intolerable risk, and lays bare the spurious distinctions between blockchain humanitarianism and crypto.

The upselling of Unblocked Cash further dulls the distinctions between technological use cases and the public relations logic at the heart of blockchain solutionism. The plaudits and funding Unblocked Cash secured with the EU's "Blockchain for Social Good"[34] prize features prominently in the self-narrativizing of Emerging Impact, Oxfam, and Sempo. Oxfam's presentation to the EU Innovation Council is demonstrative of the way solutionism comes to mirror the performative style of a venture

capital pitch. Oxfam declares Unblocked Cash a scaleable solution, stating, "we have the market, we have the network, we have the partners, we have the expertise."[35] The project has also garnered attention for Sempo in Wired magazine as a solution to the problem of distributing stimulus checks during the COVID pandemic.[36] While the ethical issues between capital, technology, and philanthropy are not exclusive to blockchain, it is a platform uniquely suited to the self-reinforcing cycles of solutionist hype regardless of project suitability (more on this below). As Gerard writes of Libra, the impetus may well be genuine but can only serve to cast problems and solutions in terms venture capitalists, tech developers, and crypto-billionaires understand.[37] These imperial class politics become undeniable in the form of the Global Blockchain Business Council, which boasts having been conceived on Richard Branson's Necker Island and launched at Davos.[38]

BLOCKCHAIN COLONIALISM

Blockchain colonialism in the developing world advances with a humanitarian face, taking advantage of a desire for technological development and a regulatory weakness among developing world governments. Promises of technological leapfrogging and leading the charge toward a trillion-dollar digital revolution appear as attractive alternatives to colonial legacies of dependence and the exploitation of natural resources. The exuberance of developers in the Pacific has led to claims that indigenous societies are "naturally decentralized"[39] and uniquely positioned to develop the blockchain with "alternative economies and governance systems … deeply ingrained in our culture."[40] In the developing world, blockchain advocates wield a narrative of authentic indigenous and blockchain values uncorrupted by mediating institutions. Shane Ninai of Papua New Guinea and Ledger Atlas has spoken of shell money as analogous to "proof of work" and communal structures as a "consensus algorithm."[41] In the Marshall Islands, a national cryptocurrency was touted by leaders as "manifesting our national liberty" and marking them as the "first nation to adopt a transparent crypto monetary system."[42] The impetus to plant the blockchain flag among developers and governments imbricates them in the logic of solutionist PR and blockchain triumphalism. In the case of El Salvador's president Nayib Bukele, his efforts in granting Bitcoin the status of legal tender has made him part of the crypto-elite, wielding the "aspirational chaos of cryptocurrency"[43] as a governance strategy to compensate for democratic deficits. (A poll conducted by Francisco Gavidia University of Salvadoreans found popular sentiment regarding the legal implementation of Bitcoin as legal tender overwhelming negative with 49% of respondents expressing "Uncertainty," 29% "Fear" compared to 20% as "Optimistic.")[44]

The rollout of blockchain and other vanguard technologies in the developing world trace colonial histories, power imbalances, and the advance of western capital through technological abstraction. Madianou has described techno-solutionism in the aid sector as shifting "the risks of experimentation … to some of the most fragile environments in the world with value extracted for the benefit of stakeholders including private entrepreneurs and large companies."[45] The speculative logic of blockchain colonialism is evident in an extraordinary MOU between the government of Papua New Guinea and Ledger Atlas, a Delaware-registered company backed by Silicon Valley venture capitalist, billionaire, and Bitcoin evangelist Tim Draper. The MOU sought to establish a blockchain "extraterritorial" special economic zone with Ledger Atlas acting as an "independent stand-alone administrative entity specifically constituted for regulating and administering the economic zone under the stewardship of Ledger Atlas inc."[46] Draper announced the project to a crowd gathered outside of Draper University in San Mateo, California, declaring the creation of a "virtual governance platform" using bitcoin and blockchain to serve as a "model for all governments in the world for the next fifty years."[47] While this agreement has yielded no tangible output, and the Ledger Atlas URL has since lapsed, it demonstrates the blockchain shell games of legitimation that leverage solutionism, tech-development, and the legal imprimatur of the state to obscure blockchain colonialism.

The audacious failure of Ledger Atlas in PNG may appear as an excess of tech-capitalist hubris; however, it highlights the inseparability of "humanitarian" blockchain from proprietary platforms and design principles transposed from the private sector that lack context-specific knowledge suitable to developing world societies.[15] In Vanuatu, Oxfam's aforementioned Unblocked Cash has been one of the flagship humanitarian blockchain projects unfolding alongside the most unseemly elements of the crypto-economy. Vanuatu's status as a tax haven with citizenship-by-investment has made it a hub for wealth protection, crypto scams, and libertarian fantasies of a tax-free island paradise. Vanuatu made headlines in the international business press with the shadowy businessman and government-approved passport broker Geoffrey Bond selling citizenship via Bitcoin.[48] Bond would also go on to purchase land for a resort in Vanuatu with Sebastien Greenwood,[49] the indicted co-founder of Onecoin, a cryptocurrency-style Ponzi/multi-level marketing (MLM) scheme that defrauded users of billions, particularly in the developing world. Vanuatu has also provided citizenship for the creators of the billion-dollar scam Africrypt,[50] and the sale of Vanuatu's Pacific Private Bank allowed the Lithuanian cryptocurrency Bankera to acquire a bank license, something denied to them in their home country.[51] From its Vanuatu foothold, Bankera claimed to be a blockchain-driven digital bank and raised $150 million in what amounted to a conventional pump-and-dump initial coin offering with its value collapsing almost immediately.[52] These developments were unwelcome in light of the Vanuatu government's efforts to comply with the Financial Action Task Force's anti-money-laundering standards. In response, the Reserve Bank of Vanuatu issued a statement "strongly advising all corporate, financial institutions, public enterprises, and individual customers and public at large to refrain from involving themselves in Bitcoin."[53]

A minimum requirement of any ethically sound humanitarian blockchain project should be to address the context of crypto's highly speculative and techno-colonial logic as well as acknowledge the importance of Vanuatu's economic sovereignty. These are distinctions that blockchain humanitarian projects fail to address, as they are imbricated in the solutionist hype machine that serves other priorities. Unblocked Cash's self-reporting is laudatory, and my research benefits greatly from it, but it underscores the inseparability of these paradigms and a solutionist

myopia that evades "the rationale for choosing blockchain platforms."[15] The project centers on cash aid in disaster response, with recipients receiving preloaded near-field communication (NFC) cards with DAI-stable coins and approved vendors and distributers using smart phones to clear transactions and feed back information to Oxfam. Oxfam credits the system with "modest cost-savings and significant time-savings"[28] while acknowledging difficulties with user literacy and the highly centralized nature of the blockchain in which the core developer "represents a single point of failure."[15] What is characteristic of humanitarian and blockchain governance projects is how principles of disintermediation fail or are abandoned when confronting the reality of network infrastructure and social systems. NFC cards help to work around connectivity issues but do not allow end-users to have "access or the literacy to comprehend the information stored on the network."[28] Its an end-user outcome that begins with the unexamined premise of blockchain solutionism that ends up functioning as a private database.

A crucial finding in their reporting on Unblocked Cash was that "disintermediation was undermined by the reliance on incumbent Financial Service Providers related to unforeseen complexities of actors cashing out of the system."[28] Put simply, cash was a necessary mediator in this project for vendors as a result of the Reserve Bank's crypto prohibition. However, this key regulatory framework and its political context go completely unacknowledged, and the subsequent recommendation "is to encourage vendors to exchange their DAI for fiat currency through third-party exchanges such as Binance … remov[ing] the reliance on incumbent financial institutions."[28] For the greater universal good of disintermediation, Oxfam shows blithe disregard of the Reserve Bank's policy and declaration of "Vatu currency as the sole legal tender in the country,"[53] calling instead for a migration to the vanguard institutions of crypto, namely crypto-exchanges. Binance is a strikingly reckless recommendation, as the exchange has been banned in major markets[54] and holds the largest stake in Tether,[55] bringing with it the very likely risk of illiquidity. Such a recommendation can only be countenanced by a solutionist ignorance of crypto-politics or a desire to transform developing world governance over all else. As Oxfam takes this program to Papua New Guinea, solutionist exuberance and speculation will continue to be defining features of blockchain humanitarianism.

CONCLUSION

The failings of blockchain humanitarian projects owe to an inability to operate outside the solutionist PR machinery and the broader crypto-economy central to this technological paradigm. The partnerships between blockchain platform developers, NGOs, and developing world governments invest all parties in the same PPP disruption model that champions Silicon Valley solutionism. For blockchain developers and evangelists, humanitarian headlines and aspirations are crucial to deflecting questions about environmental costs, immense concentrations of wealth, and crypto's role in enabling all manner of criminal activity. Blockchain's humanitarianism offers a redemptive trajectory in the face of the current techlash, as IBM's "Dear Tech" apology campaign puts it: "let's use blockchain to help reduce poverty."[56] The emphasis has changed from explicitly crypto-radicalism, but the platforms, key movers, and valorization through PR remain the same. Governance blockchain's lack of standardization, technical shortcomings, and new intermediating layers derive from the fact that claims to data immutability and consensus algorithms cannot be replicated in complex social systems. While there may be rancor within this paradigm, solutionism ensures a lack of self-awareness, as all parties are invested in their own claim to proof of concept and their purity of purpose. Scammers, evangelists, and humanitarians are interchangeable in this space. Forcefully confronting the techno-colonialism of Bitcoin Foundation president Brock Pierce, Silicon Valley scion Tim Draper or the Ethereum Whales Vitalik Buterin and Joe Lubin cuts against the interests of the solutionist class. Within these political economic contours, the prospects for a blockchain humanitarianism able to address the ethical concerns around experimentation and platform speculation appear slim.

Beyond this kind of speculation, it is worth considering briefly the explicitly colonial objectives of organizing bodies and advocacy groups such as the GBBC. Blockchain governance projects function as tools of digital cartography for developing world markets and for the extraction of value. The champion of this blockchain development paradigm is Hernando de Soto, principal economist on the GBBC board of directors, long-time political ally and advisor to the far-right Fujimori political dynasty in Peru, and a key figure in forging the so-called "Washington Consensus" of property rights and market reforms in the developing world. de Soto has championed blockchain as a means to "end poverty" by bringing "undeveloped assets and resources worth $170 trillion" into the global market via a "single computer platform [that], can share the blessings of private-property registration with the whole world."[57] The inclusion of these resources through "organized knowledge about the location of every visible asset on earth"[28] serves to undermine the developing world state and precludes non-market conceptions of value. In Fiji, where 90% of lands have remained under indigenous control as a result of the anti-colonial struggle against the British,[58] this digital cartography is unfolding under the auspices of the Asian Development Bank. A blockchain land registry, which builds in banks, insurance, and investment agencies as permissioned stakeholders[59] in indigenous land tenders, has been key in efforts to rationalize land use under the rubric of the market. This prizing open of Fijian lands for appraisal and the streamlining of leases has provoked recent political unrest[60] and the sense that tools of technological and market abstraction threaten indigenous sovereignty. Viewed in this way, blockchain humanitarianism is not simply the human face of the crypto-economy but an intensification of the South-to-North extraction of value via solutionism and blockchain platforms.

DECLARATION OF INTERESTS

The author declares no competing interests.

INCLUSION AND DIVERSITY

While citing references scientifically relevant for this work, we also actively worked to promote gender balance in our reference list.

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Dr. Olivier Jutel is a communications lecturer at the University of Otago whose research has been concerned with digital media and politics. His ongoing work examines the role of techno-utopian and cyber-war discourses in the geopolitics of platforms. Jutel's work is highly interdisciplinary, bringing together political economy, critical theory, and psychoanalytic political theory to examine the rise of online political movements and the failures of the normative liberal visions of the internet. His work in the Pacific follows 4 years of teaching and researching at The University of the South Pacific in Fiji.