

飞出个未来：
区块链中的时间多重性
TIME AFTER TIME:
THE POLYCHRONICITY
IN BLOCKCHAIN

Hyundai Blue Prize
Art+Tech 2022

策展人：毕昕
Curator: BI Xin

Time After Time
: The Polychronicity in Blockchain

Date.
11.17.2022 ~ 3.31.2023

Venue.
Hyundai Motorstudio Beijing E-01 Road,
798 Art Zone, No.4 Jiuxianqiao Road,
Chaoyang District, 100015 Beijing, P.R.China

Time After Time

: The Polychronicity in Blockchain

Over the past two years, our subjective experience with time has drastically changed due to the COVID-19 pandemic, becoming an elastic existence throughout which its insufficiency has been paused, folded, extended, and regressed. In many cases, these situations have had a negative impact, however, in other ways, they have constituted positive implications. They have not only reminded us that humans are not the only agents of history, but have also given us a sense of topology in time.

The global precision of time, as driven by computers and networks, accurately standardises the rhythms of modern life, with power being cashed out in temporal standardisation. In an era of "no future", how can we understand the latency, differences, and repetition of time? How can we re-consider time beyond metrics and computation? How can we perceive the traces left behind by technology in the spacing of time? Starting with block time, this exhibition attempts to search for a new timeframe based on the reference of blockchain, a data space impregnated with a topological arrow of time. Using three parallel networks of time -- Chimera (#progression #myth #dream), Energy (#incentives #sustainability #power), and Spime (#order #circulation #consensus), this exhibition delves into the temporal, social, and political order, the construction of consensus mechanisms, the circulation of energy and emotion, and the temporal slippages in technology time, in search of the forks of time and the poetry of technology.

Chimera Time (Algorithm-Time) explores the probabilistic nature of time in the context of technology itself. The present in the blockchain is chimeric, however, since there is no central authority in the network, it is possible to find a valid block from different peers simultaneously. The two different blocks will very likely differ in their content and contain two different histories, though both are equally valid. This is when probabilistic choices occur; the future does not exist, but is rather grown into the block universe, between the past and present. Energy Time (Ecology-Time) sorts out the circular chain of temporality-capital-consensus mechanism-computing power-natural resources-technology-time. It also explores how we can dialectically observe the tension and link between technological development and ecological sustainability. Spime (Social Connection-Time) merges time and space into one, exploring the trajectory of political, emotional, and community connections in the hybrid of space and time, and the connections and interventions between the virtual and real worlds.

The projects featured in this exhibition explore the continued cyber time and discrete block time from the intersection of computer science, distributed technology, social relationship structures, and literature. The probabilistic nature of block time creates a new dimension for how we can ponder the possibilities of time. Discrete blocks of time give birth to perpetual forks toward innumerable futures, thought on the other hand, such distributed structures do not automatically create an equal distribution of

wealth and power. The realisation of transparency and equality that blockchain technology advocates, as well as the vision of a posthuman economic prototype it proposes, still depend on complex participation, experimentation, and collaboration. At the same time, we still need to consider the question of sustainability, since if we cannot balance technological developments and ecological consumption, there is the concern that we will eventually run out of time. The internal logic of technology itself may be singular, but artistic, creative, imaginative, and emotional elements make this logic complex and fascinating. Perhaps the artistic disruption of technology is the force required to escape linear time.

BI Xin

Artists:

César Escudero Andaluz & Martín Nadal, Simon Denny in collaboration with Guile Twardowski and Cosmographia, eeffff, GUO Cheng, Helen Knowles, Lee Tzu-tung, LIU Chuang, Nascent (Paul Seidler & Max Hampshire) in cooperation with Amy Ireland, Yuri Pattison, SHI Ruini

Technology Lead: CAO Daxu

Exhibition Design: CAO Daxu

Graphic Design: MAO Youran, YANG Miaoxin

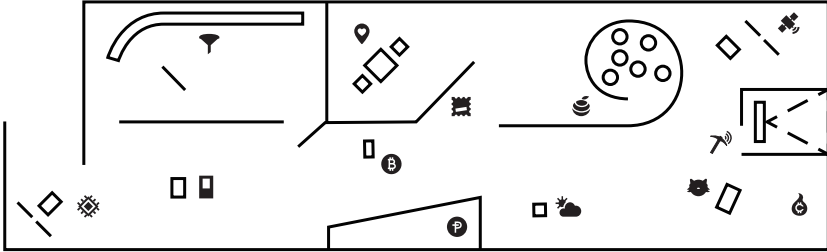
Editorial and Translation: BI Xin, Jiajing Lily Sun, WANG Yajing

Special Thanks to

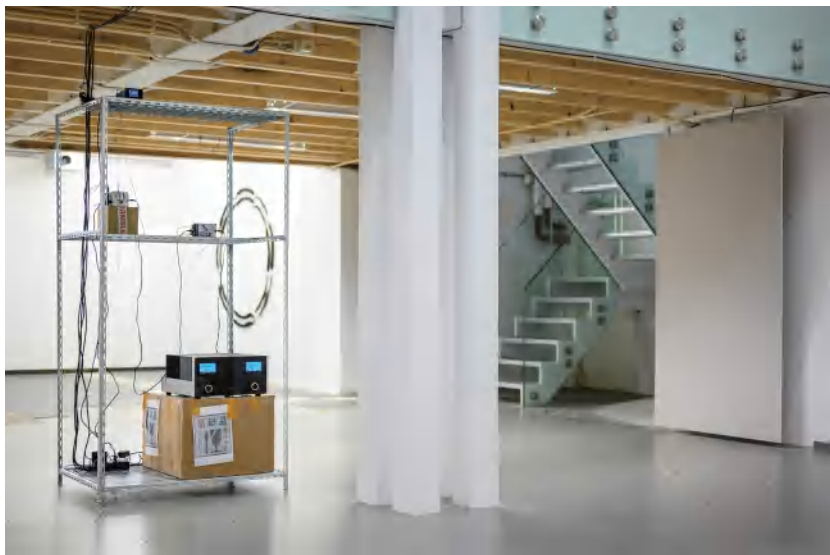
ETHPlanet, Vairocana, Primitives Lane

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Exhibition Floor Plan



-  World Clock EAST (True Time simulation Replica)
-  World Clock WEST (True Time simulation Replica), 2022 Yuri Pattison
-  Temporal Secessionism (Machine Time), 2020 Nascent (Paul Seidler & Max Hampshire)
in cooperation with Amy Ireland
-  BitterCoin, 2016 César Escudero Andaluz & Martín Nadal
-  Positive Coin, 2019 Lee Tzu-Tung
-  The Weather Consensus, 2022 GUO Cheng
-  Dotcom Séance Simon Denny in collaboration
(cashwars.com and financialprinter.com), 2022 with Guile Twardowski & Cosmographia
-  Can Sound Be Currency?, 2021 LIU Chuang
-  Economic Orangery 2021, 2021 eeefff
-  LoveCounter, 2022 SHI Ruini
-  Trickle Down - A New Vertical Sovereignty, 2020 Helen Knowles



World Clock EAST (True Time ~~simulation~~ Replica)

Yuri Pattison

World Clock WEST (True Time ~~simulation~~ Replica) SOUND, SLOTTED ANGLE
INSULATION PANELS
CHIP SCALE ATOMIC CLOCK (CSAC)
GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) DISCIPLINED CLOCK
COUNTERFEIT MCINTOSH MC75 MONOBLOCK AMPLIFIERS
(FOSHAN, GUANGDONG PROVINCE, CHINA. 2022)
CUSTOM FREQUENCY DIVIDER CIRCUITS, CABLES, AUDIO TRANSDUCERS

2022

World Clock EAST / World Clock WEST consists of two interlinked sculptures, each respectively orientated in the east and west of the gallery. The work is an exploration of network time - its infrastructures, systems and effects. This precise global time is the invisible standard that controls our modern life, from digital computing and communications to financial activities that are faster than the operation of human consciousness.

World Clock WEST contains a Chip Scale Atomic Clock (CSAC). The CSAC is a miniaturised realisation of the highly accurate cesium atomic clock that was developed by the US Defense Department's infamous DARPA (Defence Advanced Research Projects Agency) for use in satellites and military drones but are now at the center of a diverse range of industries including telecommunications, shipping, hydrocarbon exploration and finance. The Chip Scale Atomic Clock (CSAC) as a navigation tool can be considered a direct descendant of the marine chronometers that made European colonial expansion possible. Here the clock is "disciplined", a form of ongoing calibration, by timing signals received from the Global Positioning System (GPS) network operated by the United States Space Force and launched as

the first Global Navigation Satellite System (GNSS) in 1978.

World Clock EAST contains a Global Navigation Satellite System (GNSS) disciplined clock which is in turn calibrated by signals received from the BeiDou Navigation Satellite System, the equivalent navigation network run by the China National Space Administration and developed in response to the United States control of the Global Positioning System.

Utilizing the timing frequencies output by these clocks Pattison has worked with a former technician from the Royal Observatory Museums in Greenwich to design and handbuild a set of custom circuit boards to make these frequencies audible to the human ear. These signals are then amplified by a pair of counterfeit McIntosh MC75 vacuum tube amplifiers, a design synonymous with nostalgia for the technological and cultural prowess of the United States in the 1960s is here expertly remade in replica by a factory in Foshan, Guangdong in 2022. The amplified signals are played into audio transducers fitted to reflective insulation panels which directly vibrate through the gallery, harmonized by the ideologies of their components.

Through the utilization of two different Global Navigation Satellite Systems, along with a mix of components of global origin, Pattison meditates on the geopolitical fabric of time in the present moment. In the context of this exhibition Pattison considers the human invention of standardized time and its modern application, Network Time, as centralized projects which industrialized the globe and still govern our present reality but further puts forward the question - does the Proof-of-Work Blockchain offer us a possible alternative mode of timekeeping, a constantly updated decentralized time stamped ledger, or is it simply the reaffirmation of the age old platitude that "time is money"?



Temporal Secessionism (Machine Time)

Nascent (Paul Seidler and Max Hampshire)
in cooperation with Amy Ireland

Galvanized metal, monitor, Raspberry Pi, Witty Pi
32" 172*59*13cm

2020

commissioned by Athens Biennale & Ljubljana Biennale of graphic arts

The entanglement of capitalist modes of production, time measurements, and consensus systems is an ongoing research field, beginning with the question of how to formulate a generative and affective position towards decentralized ledgers as

new forms of temporality, and/or new temporal regimes. According to (post-)Kantian epistemology, time arises within (and is constituted by) the boundaries of a subject's cognitive apparatus. As we increasingly rely on time systems based - either conceptually or mechanically - on different technological strata, we must also realize that these systems make explicit the fact that time - far from being a single objective metric of reality - is a socio-technological construct: a way of forming consensus regarding our accepted version(s) of reality and the ordering of events in it. If the process of creating time systems (and the mechanisms by which we count them) is always bound to social or technological processes (themselves stemming from our base cognitive apparatus), many questions arise: how do different time systems reliant on metrics outside of the dominant one arise?

The development of timekeeping practices from sundials through to mechanical and digital clocks, alongside the ever-increasing precision of digital clock-time, can be mapped to progressive instantiations of globalised capitalism's control mechanisms in a manner that is both fairly non-controversial and the subject of extensive historical analysis and research. As such, this will not be our focus here. The development and instantiation of blockchains and DLTs - the focus of our efforts in this brief text - appear to have upending the power distribution of the post-Y2K digital, globalised time cyberspace: time, instead of being passed down a tree of hierarchies unilaterally from centralized timekeepers to other digital machines in a network of temporal command-and-control, is now produced as the outcome of equally permissioned network nodes participating in a series of games in order to agree on a shared history, referred to as consensus.

What mechanisms are already in place to create different modes of time calculation and management? On a broader scale, how do these temporalities co-exist and affect each other? Examination of existing metrics reveals various systems already at work at the core of technical infrastructure today: differing consensus-finding mechanisms as differing mechanic temporalities, all running parallel to each other. Temporal Secessionism is an infrastructure presenting alternative time counting systems that are based on a selection of technological processes, including informational consensus systems, numerological computation and state machine replication algorithms. The mechanics of these objects stem from explorations of the confluence of computer science, mysticism, and decentralised technology. Each node in a series functions as a terminal that catalyzes a different experience of time in its local area. A text by Amy Ireland is fragmented and re-arranged according to the passage of time in the three zones providing a generative framework of textual references.

Energy Time

Originally thought of as a mechanism to prevent spam, Proof of Work also uses as a part of Bitcoin's consensus algorithm. The Protocol itself regulates the difficulty, which is adjusted according to the hash-rate, creating a contrived regularity within the network. In Nascent's experimental Proof of Work implementation, they strip away these self-regulating mechanisms in order to quantify time by the actual computation work being done. Given that the amount of work - the interaction of the participants - is not constant, neither will the passage of time.

Machine Time

Various consensus algorithms are deployed in existing cloud environments - Paxos and Raft are the most accessible of these. This mechanism will mimic a political election, with every node voting on a leader. It doesn't rely on human interaction to define consensus - it arises from the interaction of autonomous nodes according to their own logic. It is a purely abstracted instance of machine time, determined by and existing in relation to the task at hand between the three nodes: creating a

shared consensus regarding the event that had just occurred, as well as its precedents.

Healing Time

Every digital device contains a quartz crystal, the frequency of which acts as a baseline for its internal clock. By changing the frequency of this crystal, the internal temporal rate of all of the computer's other functions is radically changed as well. Quartz is also used in multiple healing practices via its ability to be 'programmed' with an individual's intentions, amplifying this at a certain frequency. Changing the frequency at which the crystal oscillates is, therefore, an act of altering the base machinic time of the computer in the clock via programming it with intention as it is used in healing practices.



BitterCoin

César Escudero Andaluz & Martín Nadal

Installation, calculator

2016

Bitcoin was originally conceived as an electronic decentralized system for financial transactions. Each node (user) in the peer-to-peer network has the same opportunities to get a reward when validating a transaction.

In recent years this system has triggered a competitive struggle in which computing power is the most important variable for earning Bitcoins. This involves the use of powerful equipment and server farms spending physical and environmental resources. A struggle that only benefits the owner of the most powerful and efficient technology.

BitterCoin, an old calculator machine hacked for use as a miner to validate the pending Bitcoin transactions in the blockchain, takes up this discourse in a rhetorical way: it works like the most basic computer, increasing the time needed to produce Bitcoins almost to infinity.



Positive Coin

Lee Tzu-Tung

game currency, cryptocurrency, multimedia installation

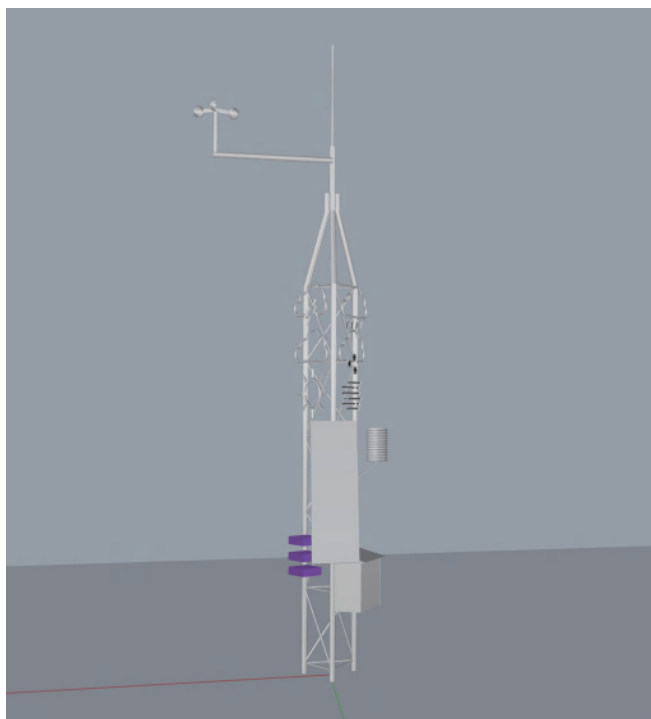
2019

“It has been said that a mysterious currency hidden in the deep forest of the digital world. People are willing to barter their money, time, and even their lives for it.”

Currency is a carrier, an invention that enables the exchange of “value” commonly accepted by the public. However, what if we invented a kind of currency that carries the AIDS virus? How would the public use and reflect on the value of currency then? Susan Sontag once stated that we often describe illness using military vocabulary; for example, how to “kill” a virus or “conquer” a disease. Therefore, in the proposal for *Positive Coin*, the artist set out to create a currency system with HIV bionic features, to experiment with what thoughts and narratives the public would form towards a new disease circulation system.

People living with HIV continue to suffer from discrimination and stigmatization to this day. The public fear towards disease is largely based on arrogance. It holds back those infected from revealing their identities. Moreover, the oppressive sexual stigma over marginalized groups impedes the circulation of news, information regarding the disease thus cast aside. With *Positive Coin*, the artist draws a parallel between “currency” and “disease”, using the analogy of their shared qualities such as being circulable, quantifiable, and controllable. “Positive” is a synonym for people who are diagnosed positive during an HIV blood test (HIV+ or HIV-positive), whilst also bearing the meaning of being optimistic and hopeful. After consulting doctors, psychiatrists, and AIDS activists, the artist group designed a cryptocurren

cy that shares the bionic features of HIV. This project explores the artistic engagement of an audience and their empathy for the variety of people infected with AIDS, and observes how narratives surrounding a disease can unfold differently.



The Weather Consensus

GUO Cheng

Blockchain test network, Customized software
 Customized circuits, Neon lights, Computers
 Raspberry Pi, Steel frames
 Software Development: CHEN lili

2022

In terms of its technical structure, the blockchain can be observed as a distributed “ledger” in which data is recorded by consensus at different nodes on a network and is fundamentally tamper-proof. Climatic data is a form of temporal data that cannot be re-validated once obtained. As a result, applying the blockchain to record climatic data can be seen as a means to truthfully write history. Various incidents regarding climatic data disputes have occurred in China over the past few years. For instance, the air pollution index self-measured and published by the United States Embassy in Beijing instigated a public discussion and widespread concern in 2021, as it contradicted the official Chinese data; during the long heatwave in the summer of 2022, extreme temperatures reported on mobile apps were refuted by the local government multiple times; meanwhile, labor disputes while working under high temperatures occur frequently each year. The installation entitled *The Weather Consensus* builds a private blockchain using devices with identical hardware

conditions, such as nodes, each responsible for obtaining information from different climatic data sources. Blocks are generated between nodes under the PoW consensus mechanism as they seize the power that is recorded in the blockchain database, the results of which are then broadcast. This artwork attempts to examine and discuss justice and trust enabled by the decentralized structure of the blockchain, as well as the paradox engendered by the connection between the blockchain and data from the real world or skewed by bias, and the unpredictable consequences it might induce such as the reinforcement of data hegemony, among many others.

Special Thanks to CHEN Lili, YAO Xiang and Primitives Lane



Dotcom Séance (cashwars.com and financialprinter.com)

Simon Denny
in collaboration
with Guile Twardowski
and Cosmographia

UV-printed canvases, Paper models
Instructional Video, Digital Collectables

2022

Dotcom Séance is a new work by Simon Denny, in collaboration with Cryptokitties NFT illustrator, Guile Twardowski and text-to image AI group Cosmographia, where companies that failed in the 2001 dotcom crash are resurrected as NFTs. A series of “dead” Web 1.0 companies, including cashwars.com and financialprinter.com, were selected for revival, given new life in Web 3.0.

Denny and Cosmographia made a number new logos from the companies using

AI-generated images, based on text inputs describing the dead companies. The resulting outputs are sold as “middle management” NFTs. Twardowski also made a rendition of each company’s logo, inspired by his favourite of the AI outputs. His reinterpretation constitutes the “CEO”-tier NFT for each company. By adding their ENS subdomains, the new “employees” – that is, NFT holders – can coordinate amongst themselves and form de facto collectives.

Cashwars.com was a free online role-playing game, where winners were awarded money. Financialprinter.com was a website that produced and distributed financial and legal documents for companies. Both perished when the dotcom bubble burst – and yet, both now read as foresighted echoes of present-day uses of blockchain.

These two companies’ new logos are now translated into the exhibition space as prints on small square UV-printed canvases. A material connection carries between the form of these cheap canvases and the humble JPG format of their life online. The larger canvases depict Twardowski’s design for each company’s CEO NFT alongside its AI-generated inspiration.

An instructional video also appears here, walking visitors through the process of minting a *Dotcom Séance* NFT via the project’s website. While cashwars.com and financialprinter.com are all sold out, positions are still open at a number of other reanimated companies.

The new *Dotcom Séance* works are shown in parallel to *Cryptokitties Christie’s Sale Display Reconstruction*, 2018, a monument to the sale of a Twardowski-illustrated CryptoKitty for \$140,000 at a Codex Protocol & Christie’s auction in 2018.

Alongside these stands another work that touches on technological change and the instability of time: *Backdated NFT / Ethereum stamp* (2016-2018-2021), where a paper portrait-as-postage-stamp of Vitalik Buterin from 2016 was rubber-stamped with the details of an NFT from 2018. The original digital asset associated with that token was then swapped out, replaced with an image of the stamped portrait, effectively creating an NFT “minted in the past”.



Can Sound Be Currency?

LIU Chuang

2k, color, stereo
19'43"

Commissioned by the 13th Shanghai Biennale and Power Station of Art
Courtesy of the artist and Antenna Space

2021

Since time immemorial, mountains have been regarded as sacred sites across different cultures and they have inspired a wealth of myths, rituals, and religions. In *Can Sound be Currency?*, the mountainous landscape of the Sichuan province resonate with sounds of diverse origin and nature: atmospheric and animal, human and artificial. The film's sonic landscape is meaningfully composed to evoke the complex entanglement between humans and nature, the cosmological views and linguistic diversity of indigenous communities, and the evolving ways in which sounds express spiritual significance and shape interspecies relations. Set in a territory rich with ethnic minorities, *Can Sound be Currency?* also addresses the changes and losses endured by local communities in the face of fast-paced economic development.

By Dr Anna Lovecchio
Assistant Director, Programmes
NTU Centre for Contemporary Art Singapore



Economic Orangery 2021

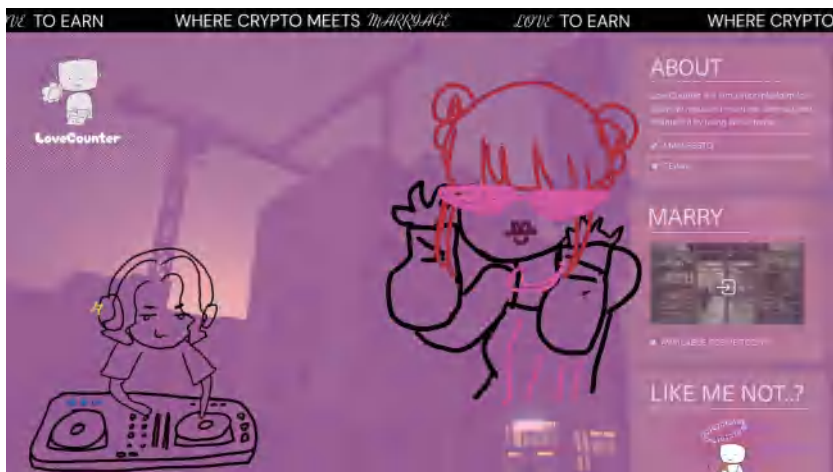
eeeff

Yoga Balls, Participatory Website
Chatbot, Manual

2021

Economic Orangery 2021 is an experience of togetherness and weaving of a collective narrative. As an *economic science-fiction of the present-day*, this initiative is a network and a live action role play game that serves as a place to gather and preserve the speculative knowledge about 2021 blockchains – and speculate on future histories of blockchains. In the background story, decentralized technologies have stopped being a part of everyday life long ago and turned into fossils of the past economies. A group of orangery keepers meet for evening procedures and cybernetic gymnastics, and at night they have dreams about insides of the algorithmic technologies of 2021.

The project by eeefff aims to provide a view on the cultural, tech and start-up sphere and to free the emancipatory potential of collectivity by experimenting with its inner logic, and to suspend the – apparent – neutrality and progressiveness of automated financial technologies.



LoveCounter

SHI Ruini

Interactive website, Digital Collectables

2022

Credit –
 supported by Gallery Func
 UI/UX - HU Ji
 Illustration - Blackcat
 Game design - TantX
 Website Development - mmxiang
 Sound Design - Ankar Arken
 Scene Design - bkk
 Project Management - Miao Zijin
 Consultant – lambda
 Smart Contract Programming – CHEN Lili
 Executive Producer – Milia Xin BI

LoveCounter is a fictional platform providing a range of services around marriage smart contracts (MSC). It is committed to building an emotional autonomous region for all lovers on the web 3.0 environment.

In our current Web 2.0 environments, users are allured by the data-driving dating that claims to counter the contingent nature of love. Dating platforms present novel approaches to love as neutral and reassuring, when in fact, they are increasingly haunted by archival uncertainties, such as new forms of errors, vulnerabilities and forms of control.

To take back control and ownership of emotional autonomy, *LoveCounter* creates a porter for users to experience emotion and intimacy in decentralised ways. Every user is identified by their universal crypto wallet where each digital transaction and

activity is recorded in the blockchain. The lovers' joint crypto wallet is associated with their MSC. The MSC is determined by the terms agreed upon by individuals. Intimate relationships are no longer institutionalised; instead, financial security, responsibility, and actions can be held accountable under the agreement between two or more people.

Within a social-fi-enabled world, each activity and social interaction become immutable and quantified, and a financial instrument to be owned, bought, and sold. New ways to maintain intimate relationships emerged. New dynamics among the meaning of love, financial wealth, and emotional value for all users begin to form. Emotional labour and acts of service are quantified and valued on web 3.0. Users can earn Karma when spending time and effort maintaining a high-quality relationship. Finally, “love-to-earn” is one step closer to reality.



Trickle Down - A New Vertical Sovereignty

Helen Knowles

video installation
machine/sculpture
poster, ambisonic soundscape

2020

Trickle Down, A New Vertical Sovereignty is an artwork by Helen Knowles, supported using public funding from Arts Council England. The artwork is produced by FutureEverything with additional support from The Whitworth, The University of Manchester, arebyte Gallery and FACT.

Photography, film and sound editing: Helen Knowles.

Recordings: Helen Knowles, Denis Jones, Damien Mahoney and Arone Dyers

Machine design: Daniel Dressel

Composition, coding and sound diffusion design: Pablo Galaz Salamanca

Interaction design: Rob Prouse

Thanks to BlockRocket, Howard Kennedy LLP, Ethereal Summit, ConsenSys, Known Origin, Metamark and The University of Salford.

Trickle Down, A New Vertical Sovereignty is a tokenised video installation and soundscape attached to the blockchain, which explores value systems and wealth disparity. The artwork is composed of auction scenes, performances and choral interludes by different communities such as prisoners, blockchain technology employees, market sellers, and Sotheby's auction bidders.

Trickle Down, A New Vertical Sovereignty draws on technological and financial power structures which traditionally scaffold the disparity between a wealthy elite

and everyday working people but looks to re-imagine our vertically stacked digital ecosystem to horizontally distribute wealth. What are the technological and financial power structures governing value and the distribution of wealth in our society? And who really stands to benefit?

Helen Knowles documented a series of auctions in widely different settings, which reflect the breadth of wealth and financial power individuals in different communities have. These include prisoners at HMP Altcourse in Liverpool, Ethereum Summit attendees, employees at blockchain company ConsenSys in NY, Mancunians at Openshaw market in North Manchester and the Russian community in central London buying their cultural artefacts at Sotheby's auction house. Knowles captured images of people from these communities bidding, through documenting their attire rather than identities, and with musicians, Arone Dyer and Denis Jones made audio recordings of them singing. Ultimately, revealing the texture of the communities which represent such disparate economic groups.

The installation commences when a visitor drops a token worth one pound coin into a machine designed to expose the mechanisms needed to convert fiat currency into crypto-currency. Each and every member of the Trickle Down community, who has helped the work come to fruition, will receive a share of the equivalent value in ETH, a cryptocurrency, via a smart contract on the blockchain.

With thanks to Rob Prouse, Daniel Dressel, BlockRocketTech, Denis Jones, Arone Dyers, Pablo Galaz, Lewis Sykes, Howard Kennedy LLP, Dave Beech, Ethereum Summit, Metamark, Known Origin, Damien Mahoney and The University of Salford.

About the Artist

Yuri Pattison

The practice of Yuri Pattison connects and materializes the intangible spaces between the virtual and physical through video, sculpture, installation, and online platforms. It explores how new technologies such as the digital economy and online communication have shifted and impacted the systemic frameworks of the built environment, daily life, and our perceptions of time, space, and nature. Solo exhibitions include the engine, Douglas Hyde Gallery, Dublin (2020~21); trusted traveller, Kunsthalle Sankt Gallen (2017); and user, space, Chisenhale Gallery, London (2016). Selected recent and upcoming group exhibitions include Radical Landscapes, Tate Liverpool; Post Capital, Kunsthall Charlottenborg, Copenhagen (2022); One Escape at a Time, 11th Seoul Mediacity Biennale, Seoul; No Linear Fucking Time, BAK, Utrecht; Proof of Stake – Technological claims, Kunstverein in Hamburg, Hamburg; The Ocean, Bergen Kunsthall, Bergen, Norway; TECHNO, MUSEION, Bolzano, Italy (2021); Long Live Modern Movement, CCS Bard, Hessel Museum, New York (2020) and Phantom Plane, Cyberpunk in the Year of the Future, Tai Kwun Contemporary, Hong Kong (2019)

Nascent (Paul Seidler & Max Hampshire) in cooperation with Amy Ireland

Nascent is an EXIT TECH production studio investigating alternative infrastructures. Delving into the nature of games, economics, and consensus systems, they create theory-based computational experiments and tools to prototype technological secessionism and spark discussion about the base layers of current stacks. Nascent also consults on tactics and strategies for building p2p economies and spatial- and socio-economic structures via prototyping minimal viable solutions.

Paul Seidler is a Berlin based artist and researcher exploring economic systems, arithmetics and formal languages. His works have been shown or discussed at Schinkel Pavillion, Transmediale and KW Institute for Contemporary Art.

Max Hampshire is a researcher and developer based in Vienna working on experimental minimum-viable systems. His work has been presented and discussed at Schinkel Pavillon, Grey Area Festival, and Furtherfield.

Amy Ireland is an Australian experimental writer and theorist based in the UK. Her work transects disciplinary and formal boundaries, crossing into philosophy, fiction, code, occultism, performance, poetry, and sound. She is best known for her work with the technomaterialist transfeminist collective, Laboria Cuboniks, whose Xenofeminism: A Politics for Alienation (Verso, 2018) has been translated into 18 languages.

César Escudero Andaluz & Martín Nadal

Martin Nadal (BSc) is an artist/creative coder based in Linz and studying the Interface Cultures program at KunstUni. In the past years he has collaborated in a variety of projects and taught some workshops related to art and technology. He is also interested in illustration and cinematography. His works have been shown at Visualizar 11 (Medialab Prado), Ars Electronica, AMRO Festival y Settimana della Scienza (Genova). IAMAS (jp). ZKM (de).

César Escudero Andaluz is an artist focused on digital culture, interface criticism and their social and political effects. César's research addresses issues such as dataveillance, algorithm governance, tactical interface and critical mining. His practices combine interfaces, electronics, images, interactive installations robotics with critical design, media archaeology and digital humanities. His artworks have been shown in international electronic-art events, museums and galleries including ARS ELECTRONICA (at) / ZKM (de) / Nam June Paik Museum (sk) / WRO, Media Art Biennale in Wroclaw (pl) / Science Gallery Detroit (usa) / HANGAR.ORG (es) / AKSIOMA(svn) / DRUGO MORE (cr) / CHRONUS ART CENTER (chn) / AMRO Art, hacktivism & open culture (at) / TABAKALERA I (es) / NODE Forum for Digital Arts (de) / KIKK (be) / ADAF (gr). Escudero is Ph.D. Candidate and Lecturer in Postmedia Practices and Journal Club in the Interface Cultures Department at the Art and Industrial Design University of Linz, Austria. He has been guest lecturer in the Digital Aesthetic Department at Aarhus University, in the Visual Art and Multimedia Master at UPV University, and the National University of Colombia. He organises the annual event Sankt Interface.

Lee Tzu-Tung

Lee Tzu-Tung is a political artist from Taiwan. Combining anthropological field research and political activism, zir art projects explore how one survives and negotiates autonomy with multiple forms of political, gender, and illness identities. Surfing between video, installation, web art, and performance artforms, Tzu-Tung often introduces participatory method in zir works and invites participants as collective creators to test and decolonize the contemporary form of art, technology, and authorities.

Tzu-Tung had an MFA with a full merit scholarship from the School of Art Institute of Chicago, the Film, Video, Animation, and New Media Program, and a BS from the National Taiwan University, Agricultural Economics department. Zir artworks has been exhibited globally, including MOCA Taipei, C-Lab (TW), Cuchifritos Gallery, Stanford University, Tom Robbinson Gallery (US), Lisbon University (PT), ArtScape(CA), Transmediale(DE), ADL(KR), etc. Tzu-Tung is also the organizer of serval Taiwan's Indigenous and gender movements, the founder of an artist-tech-nologist collaborative NPO, and the curator of art and anthropology exhibitions.

GUO Cheng

Guo Cheng (b.1988 Beijing) is an artist currently lives and works in Shanghai. Guo works predominantly in sculpture and installation. His practice mainly focuses on exploring the mutual impact and influence between established and emerging technologies and individuals in the context of culture and social life. Guo Cheng's works often use humorous yet calm language to link grand issues with seemingly arbitrary objects and to provide critical perspectives for discussion.

His recent solo exhibitions include: "The Park", Sifang Art Museum, Nanjing(2022), "Almost Unmeant", Magician Space, Beijing (2020), "Down to Earth", Canton Gallery, Guangzhou (2019). Recent group exhibitions include: The Pieces I am, UCCA Edge, Shanghai(2022), In Solidarity with _____, OCAT Shanghai, Shanghai.(2022), Spinning East Asia Series I: A Compass in Hand, Centre for Heritage, Arts and Textile, Hongkong(2021), ARTIFICIAL INTELLIGENCE Machine Learning Human Dreams, DEUTSCHES HYGIENE-MUSEUM, Dresden(2021), BOOMERANG - OCAT Biennale, OCAT Shenzhen, Shenzhen(2021), and others.

He obtained New Century Art Foundation "Art Production and Exhibition Support Program" . Beijing (2022), Porsche "Young Chinese Artist of the Year" Award, Shanghai(2021), Ars Electronica Honorary Mentions, Linz (2020); CAC://DKU Research & Creation Fellowship, Shanghai (2020); STARTS Prize Nomination, Linz (2020); the Digital Earth fellowship (2018-2019); the Special Jury Prize of Huayu Youth Award, Sanya (2018); the Bio-Art & Design Award, The Hague (2017).

Simon Denny in collaboration with Guile Twardowski & Cosmographia

Simon Denny (b. 1982 Auckland, New Zealand) lives and works in Berlin, Germany. He makes exhibitions that unpack the social and political implications of the technology industry and the rise of social media, startup culture, blockchains and cryptocurrencies, using a variety of media including installation, sculpture, print and video.

He studied at the Elam School of Fine Arts, University of Auckland and at the Städelschule, Frankfurt am Main.

Denny has curated significant exhibitions about blockchain and art such as Proof of Stake at Kunstverein in Hamburg (2021) and Proof of Work at Schinkel Pavillon, Berlin (2018).

Recent solo exhibitions include Dotcom Séance on folia.app, www.dotcomseance.com (2021), K21- Kunstsammlung Nordrhein-Westfalen, Düsseldorf (2020); the Museum of Old and New Art (Mona), Tasmania (2019); MOCA, Cleveland (2018); OCAT, Shenzhen (2017); Hammer Museum, Los Angeles (2017); WIELS Contemporary Art Centre, Brussels (2016); Serpentine Galleries, London (2015); MoMA PS1, New York (2015); Portikus, Frankfurt (2014) MUMOK, Vienna (2013); Kunstverein Munich (2013). He represented New Zealand at the 56th Venice Biennale in 2015. His works are held in institutional collections including Hamburger Kunsthalle (Hamburg), Kunstsammlung Nordrhein-Westfalen, (Düsseldorf), MoMA (New York), Walker Art Centre (Minneapolis), Kunsthau Zürich (Zürich), Sammlung zeitgenössischer Kunst der Bundesrepublik Deutschland (Berlin) and Museum of New Zealand Te Papa Tongarewa (Wellington).

Denny co-founded the artist mentoring program BPA//Berlin Program for Artists and serves as a Professor of Time-Based Media at The Hochschule für bildende Künste Hamburg.

Guile Twardowski is a NFT pioneer, the artist behind the beloved CryptoKitties. His work has been exhibited and discussed in galleries and institutions like the ZKM (Karlsruhe) and Schinkel Pavillon (Berlin) as well as being presented in France, Brazil, USA and Russia.

Cosmographia is a new experimental AI image group founded in 2021.

LIU Chuang

Liu Chuang (b. 1978, Tianmen) currently lives and works in Shanghai. Liu Chuang works primarily with film, sculpture, readymade and installation. His works often integrate long-term history and ecological arc for imagination, tracing the social, cultural and economic transformations of contemporary China. His works have been featured in art museums including: National Museum of Contemporary Art Athens (EMST), Athens, Greece (2022 forthcoming); Astrup Fearnley Museet, Oslo, Norway (2022, 2017, 2007); Centre Pompidou, Paris, France (2021, 2020, 2019); Kunsthalle Basel, Basel, Switzerland (2021); MOT, Tokyo, Japan (2020) among others. His recent biennales and triennials include: 2nd Thailand Biennial: Butterflies Frolicking on the Mud (2021); 11th Seoul Mediacity Biennale: One Escape At A Time (2021); 13th Shanghai Biennale: Bodies of Water (2021); 3rd Guangzhou Image Triennale 2021: Intermingling Flux (2021); Kathmandu Triennale 2017: Garden of Six Seasons (2021); 12th Taipei Biennial 2020: You and I Don't Live on the Same Planet (2020); 5th Dhaka Art Summit: Seismic Movements (2020) among others. His film festival participation includes: 32nd Singapore International Film Festival (SGIFF), Singapore (2021); 66th Berlinale (Berlin International Film Festival), Berlin, Germany (2016) among others. Numerous prestigious public institutions have collected Liu's works, such as: Tate Modern, London, UK; Centre Pompidou, Paris, France; M+ Collection, Hong Kong, China; Astrup Fearnley Museet For Moderne Kunst, Oslo, Norway; LUMA Art Foundation, Arles, France.

Society Award, transmediale; her recent work 'FuneralPlay' won the first award at iArt Youth Project 2021. She was nominated for the Rapport Award for Women in Art and Tech in 2019.

eeefff

eeefff is a collaboration of two people, Nicolay Spesivtsev and Dzina Zhuk. Active from 2013. eeefff works with emotional effects of the new economic regimes driven by computation, materiality of sensibility, affects within creative industries, frictions between user interfaces and protocols, test settings for collective imaginaries. The methods of eeefff are: creating public actions and situations, online interventions, performative seminars, software and hardware hacks, framing environments and settings.

Dzina Zhuk is an artist and tech-politics researcher based in Moscow and Minsk. Her alter-ego bitchcoin works with voice, audio, future beats and sci-fi synth. Her major interests include jeopardized interfaces; emotional effects of algorithms; non-anthropocentric view towards machine intelligence; and imaginary scenarios of the present day. Dzina is also part Flying Cooperation and co-organises the annual event WORK HARD! PLAY HARD! in Minsk.

Nicolay Spesivtsev is an artist and researcher based in Moscow and Minsk. With a technical background as a computer scientist, Spesivtsev combines a critical approach to computer science that is interwoven with computational economies and queer futurism. He works with imaginations born from overlapping technological, economical, and political landscapes in present day culture. His interests include solidarity born from affective labor, critical approaches to emancipation of joy from assemblages of bodies of living subjects (human and non-human), and systems based on computation, digital decolonialism in Eastern Europe, among many others. Nicolay is part of Flying Cooperation and co-organises the annual event WORK HARD! PLAY HARD! in Minsk.

SHI Ruini

SHI Ruini, animation director and crypto researcher.

Ruini explores virtual intimacy and creates narratives that interrogate the compatibility between humanity and emerging technologies. She holds BA in Interaction and Moving Images from the London College of Communication and MA in Animation from the Royal College of Art. Ruini is currently a PhD candidate, investigated the possibilities presented by the confluence of crypto and animation.

Her first film 'Strings' won the Award of Distinction at Prix Ars Electronica 2019; her graduation film 'Desire Line' won animation award at ADAF 2020 and has been selected for festivals worldwide including Animafest Zagreb, Royal Television Society Award, transmediale; her recent work 'FuneralPlay' won the first award at iArt Youth Project 2021. She was nominated for the Rapport Award for Women in Art and Tech in 2019.

Helen Knowles

Helen Knowles (b.1975) is an artist and curator of the Birth Rites Collection. She is preoccupied with the way the immaterial meets forms of life, particularly in the social realm, teasing out questions of responsibility, autonomy and ethics in relation to technology.

Recent exhibitions include: Alberta University of the Arts, Leuphana University, Hannover project, Kunsterhaus Graz, Oil Tank Cultural Park, Seoul, (2021), arebyte Gallery, London, Ars Electronica (2020). The Mori Art Museum, Tokyo, 'Artistic intelligence' Hannover Kunstverein (2019) ZKM, Karlsruhe, Zabudowicz Collection, London (2017) amongst others. Her work is held in private and public collections including, Kunsthaus Graz, The Magistrates Association, The Whitworth Art Gallery, Gallery Oldham, Tate Library and Archive, The National Art Library, Joan Flasch Artist Book Collection, Museum of Motherhood, NY, Birth Rites Collection and MMU Special Collection. Residencies include: Trelex Residency, Switzerland (2019), Fault Lines, Future Everything (2017-2019), HMP Altcourse, Liverpool, (2017) Moscow ICA, (2015) Santa Fe Arts Institute, New Mexico (2013) Jodrell Bank Science Centre and Arboretum (1999-2001). She won an honorary mention at Ars Electronica in 2020. Currently, Knowles is working on her fully-funded PhD studentship at Northumbria University. Her project, More-Than-Human Healthcare is a study of relationships where plant intelligences and artificial intelligences look after human health.

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Hyundai Motor Company has been supporting art initiatives driven by long-term partnerships with global museums - the National Museum of Modern and Contemporary Art, Korea (MMCA), Tate, and the Los Angeles County Museum of Art (LACMA) since 2013, along with major partnerships for the Korean Pavilion at the 56th, 57th, 58th, and 59th Venice Biennale and the 20th and 21st Biennale of Sydney. The newly established Hyundai Tate Research Centre: Transnational encourages innovative ways of thinking about art and global art histories, and in partnership with global media group Bloomberg, Hyundai Motor Company connects international audiences with artists exploring the convergence of art and technology.

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