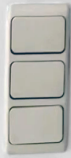


Joan Heemskerk

REc+

> > >

Hosted by Rectangle



Joan Heemskerk

REc+

>>>

at Rectangle, Brussels

13 July – 2 September 2023

Waldburger Wouters Gallery, Bd d'Anvers 49, 1000 Brussels

REc+



The term "rect" is a commonly used abbreviation for "rectangle." A rectangle is a geometric shape with four sides, four right angles, and opposite sides that are equal in length. It is characterized by its width and height.

In cryptocurrency and online gaming communities, the term "rekt" (sometimes spelled "rect") is a slang term derived from the word "wrecked." It is used to describe a situation where someone experiences a significant loss, defeat, or failure, often in a humorous or exaggerated manner.

1. "Rec" as an abbreviation for "recommendation": In online forums, social media, or review platforms, "rec" can be short for "recommendation." It is often used to suggest or endorse something, such as a product, service, book, movie, or any other item.
2. "Rec" as an abbreviation for "record": In certain contexts, "rec" can be short for "record" or "recording." It can refer to the act of capturing audio, video, or data.
3. "Rec" as an abbreviation for "recreation" or "recreational": In discussions about leisure activities or hobbies, "rec" can stand for "recreation" or "recreational." It implies engaging in activities for enjoyment or relaxation.
4. "Rec" as an abbreviation for "recovery" or "rehabilitation": In certain healthcare or sports-related contexts, "rec" can refer to "recovery" or "rehabilitation." It might indicate the process of recovering from an injury or illness or undergoing rehabilitation exercises.

The symbol ">>>" consists of three consecutive greater-than signs. Similar to the double greater-than sign (">>"), the meaning of ">>>" can vary depending on the context in which it is used. Here are a few possible interpretations:

1. In some programming languages like Java or JavaScript, the ">>>" operator is a logical right shift operator. It shifts the bits of a binary number to the right, filling the leftmost bits with zeros.
2. In certain programming contexts, ">>>" can be used as a shorthand notation to indicate a sequence of actions or a continuation of a previous code snippet.
3. In informal online communication, especially on internet forums or social media, ">>>" might be used to indicate enthusiasm, excitement, or emphasis.



Chameleon : 🦎 🎲

Every Chameleon NFT is a unique, born from the wallet address of its proprietor, a generative audio and video piece that changes every time the NFT's owner changes hands. Using a 16-bit computer aesthetics , it flashes colors and blips out chiptune audio associated with the owner's unique crypto wallet number, which scrolls at the bottom of the video.

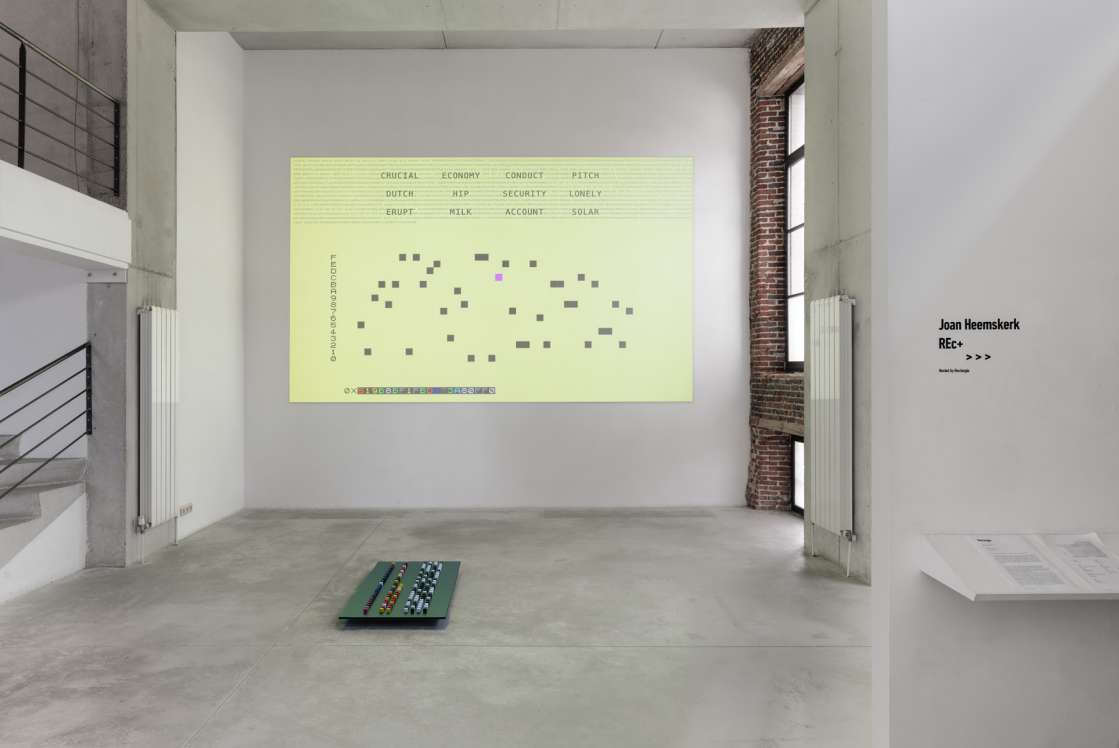
Guided by the captivating spell of 16-bit computer aesthetics and propelled by its core data, each Chameleon conducts a symphony using the owner's Ethereum wallet address, embodied by "0X" followed by 40 hexadecimal numbers. These cryptic numbers serve as the key to unlock an array of vibrant colors. The very fabric of the NFT intertwines with its cryptographic origins, yielding a spectrum of hues.

As a final layer, chance plays its role: a select subset of the 256 NFTs bears the indelible imprint of the phrase "GAME OVER" at the center of their screens. This digital insignia, a nod to the unpredictability of gaming, persists across subsequent transformations, imprinting its presence in perpetuity.

Chameleon introduces a captivating concept where each NFT evolves in harmony with its owner's wallet address. Every Chameleon NFT is metamorphosed into a distinct audiovisual experience, guided by the unique characteristics of the wallet address itself. This process influences the dynamic interplay of colors, graphics, and sound, crafting a truly personalized NFT. When a Chameleon changes hands and ownership transitions, the artwork undergoes a fresh transformation, mirroring its new owner.

2021, Generative video

<https://joanheemskerk.com/chameleon>



R4aW : Requiem for a Wallet

The number of Ethereum wallets available is larger as the grains of sand found in a desert. There are 2^{160} or 1,461,501,637,330,902,918,203,684,832,716,283,019,655,932,542,976 possible public wallet addresses. Unlocking access to such a crypto wallet requires a sequence of twelve words known as the Mnemonic seed phrase. Derived from this seed phrase, unique wallet addresses, as well as public and private keys, emerge that orchestrate the intricate symphony of cryptographic security. When the seed phrase is disclosed, it grants entry to the cryptocurrency wallet. Essentially, this marks the death of the wallet's security.

R4aw summons functional seed phrases through random processes and converts them into playable scores. This requiem comes alive through the translation of wallet addresses into vivid 16-bit colors and chiptune melodies, each note resonating in perfect accord with the unique essence of the corresponding wallet address.

2023, website, various dimensions

<https://joanheemskerk.com/R4aW>



Untitled : base 2-8-16 conversion into color cubes (Hello, world!)

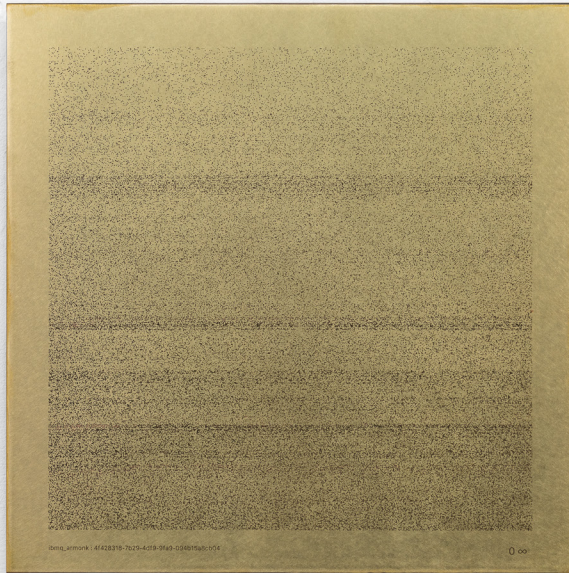
A "Hello, World!" program is like the ABCs of coding, introducing the basics just like learning the alphabet of a language. It's a straightforward program that displays "Hello, World!" on the screen. Binary code is the computer's hidden language, using "0" and "1" for its messages. Before compact computers, 8-bit microprocessors revolutionized computing, working with numbers from 0 to 7. In computer architecture, 16-bit refers to managing 16 data pieces at once. Hexadecimal (hex) is another numeric code using 16 symbols, helping us understand binary better. These aspects form the core of computers and programming languages, facilitating effective communication with machines.

The "Hello, World!" binary code shift into black and white cubes.

The "Hello, World!" 8-bit code transforms into cubes of 8 primary colors: red, green, blue, cyan, magenta, yellow, black, and white.

The "Hello, World!" hexadecimal code evolves into cubes with the fundamental 16 web colors: #000000 (black), #808080 (gray), #C0C0C0 (silver), #FFFFFF (white), #FF0000 (red), #800000 (maroon), #FFFF00 (yellow), #808000 (olive), #00FF00 (lime), #008000 (green), #00FFFF (aqua), #008080 (teal), #0000FF (blue), #000080 (navy), #FF00FF (fuchsia), and #800080 (purple).

2023, wood, acrylic paint, 61 x 122 cm



0 ∞ : ibmq_armonk : 4f428318-7b29-4df9-9fa9-094b15a8cb04

A quantum computer was tasked with executing a program consisting of an endless sequence of zeroes. The desired output was "00000000." However, errors occurred when the output deviated from this pattern, such as in the case of "00000010." This specific program is referred to as a "random benchmark test" and is employed on actual quantum computers to assess the quality of the qubits.

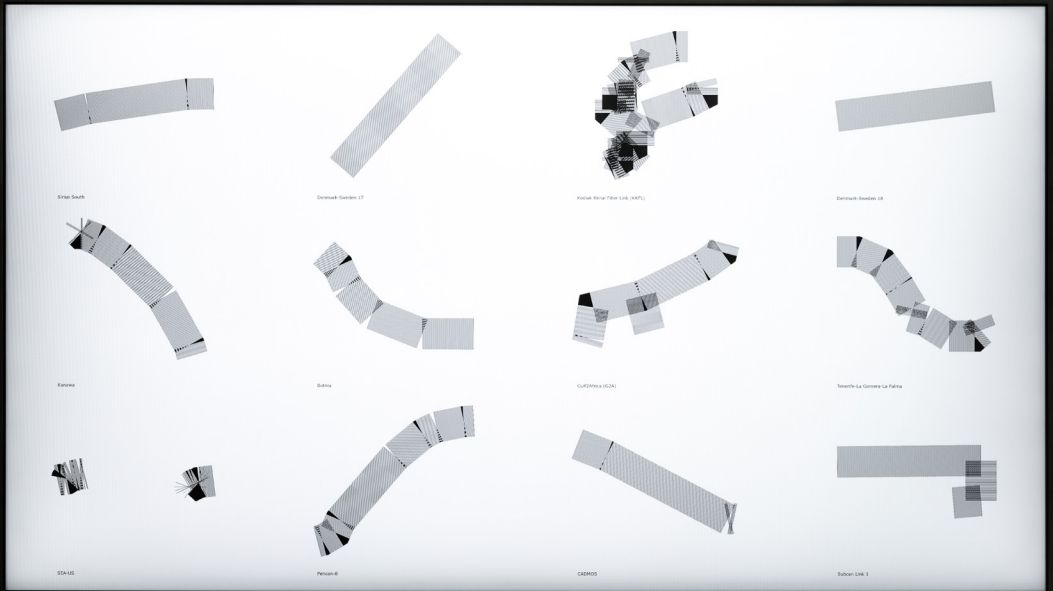
Within a remarkably short timeframe (a fraction of a second), the stability of the tiny Qubit, maintained at an extremely low temperature of -200 Kelvin, starts to waver. The Qubit's stability is vulnerable to various external influences such as stray electromagnetic waves, vibrations, fluctuations in temperature, and even potential cosmic rays.

The string of zeroes and ones that form the output of the "random benchmark test" is then converted into a visual representation using pixels, where a black hole present on a brass plate symbolizes a "1" or an error, whereas "0" results in no change to the plate. The errors detected in the measured qubit manifest as a temporal wave pattern.

ibmq_armonk is a real 1 qbit Quantum computer
jobnumber 4f428318-7b29-4df9-9fa9-094b15a8cb04 is the tracing number to retrieve the results from an experiment without having to run the script again.

2023, engraved brass, 20 x 20 cm

<https://quantq.net/n>



CABLE-

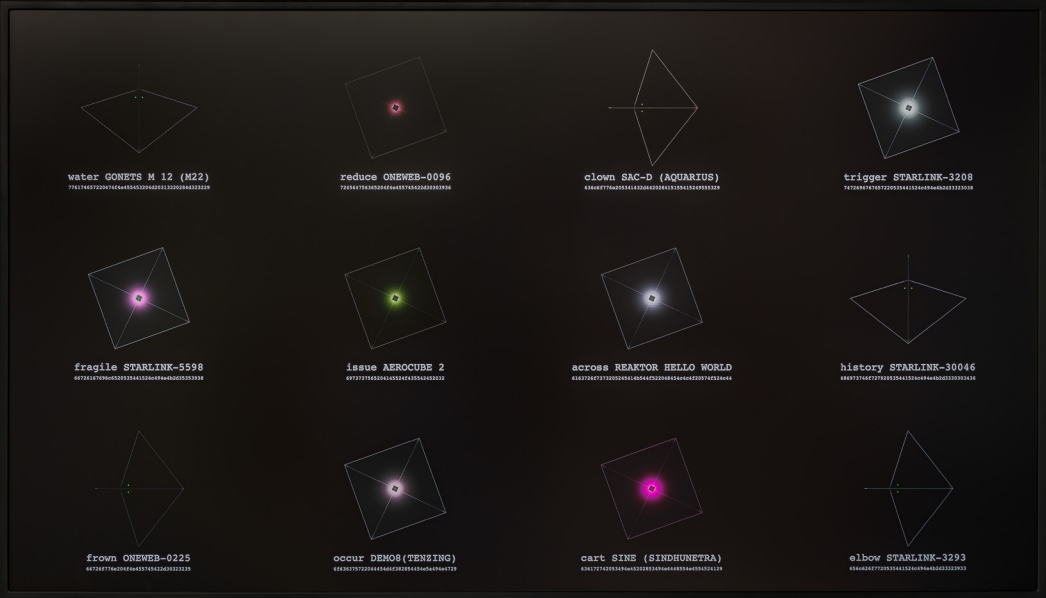
The Submarine Cable System consists of 545 fiber-optic cables that deliver 95% of all international internet traffic. Cable operators continuously establish new connection points, etching their presence onto the ocean floor.

Each subsea cable's is captured through an .SVG animation, fully stored and rendered on the Ethereum blockchain. Certain cables trace solitary paths, while others showcase intricate, curling patterns. Sturdy, dashed lines propel data through these cable pathways, functioning as conduits for digital information. Although designed as animations with a one-way flow, our graphics cards occasionally experience interruptions during the journey, resulting in a dynamic, vibrating phenomenon.

2023, animation/.SVG, various dimensions

<https://w3b4.net/cable-ix>

<https://cable.folia.app>



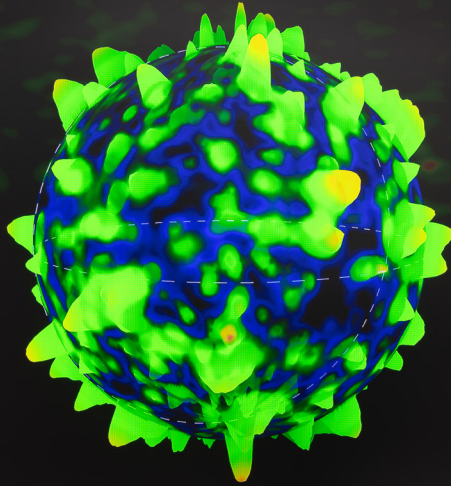
SAT-HEX

A quantum network achieved via satellites effectively utilizes quantum principles to guarantee secure and long-distance data transmission. It applies quantum key distribution for sharing cryptographic keys securely and employs quantum entanglement for immediate communication. Quantum satellites play the role of network nodes on a global scale, facilitating secure communication, advanced encryption, precise time transfer, and accurate sensing applications. The distinctive attributes of diamonds grant them a remarkable role in quantum networks, allowing the hosting and manipulation of individual quantum systems. Meanwhile, lasers are instrumental in encoding quantum information onto photons, preparing and managing states such as polarization or phase for transmission in quantum communication protocols.

In each satellite hexagon (sat-hex), a fusion of a seed and the name of an already established satellite is coupled with a specific identifier. Through laser technology, this identifier's hash is projected onto a diamond wafer, generating color diffraction patterns with significant implications within the sphere of quantum communication network applications.

2022, website, interactive, various dimensions

<https://w3b4.net/sat-hex>



αβγδεζηθικλμναξοπ ρστυφχψω ρΑΠΣ*×(ρει4%6□抵况 weather 觀整h(rain barrel B dumb SHIYAN SPACEBEE swim 60%8□ XJS BD orchard

121 10312 9998 110 101 114 118 105 99 101 4609 46784 107 100 101 110 116 100 102 121 104 99 111 117 112 108 101 79 68 50 83 65 84 76 74 65 30291 83 80 65 67 69 66 69 69 58608 38 103 116 99 2309 87 89 71 70 77 48 51 119 100 102 101 6610 90 72 83 72 60 72 11 79 78 84

PROTOTYPE

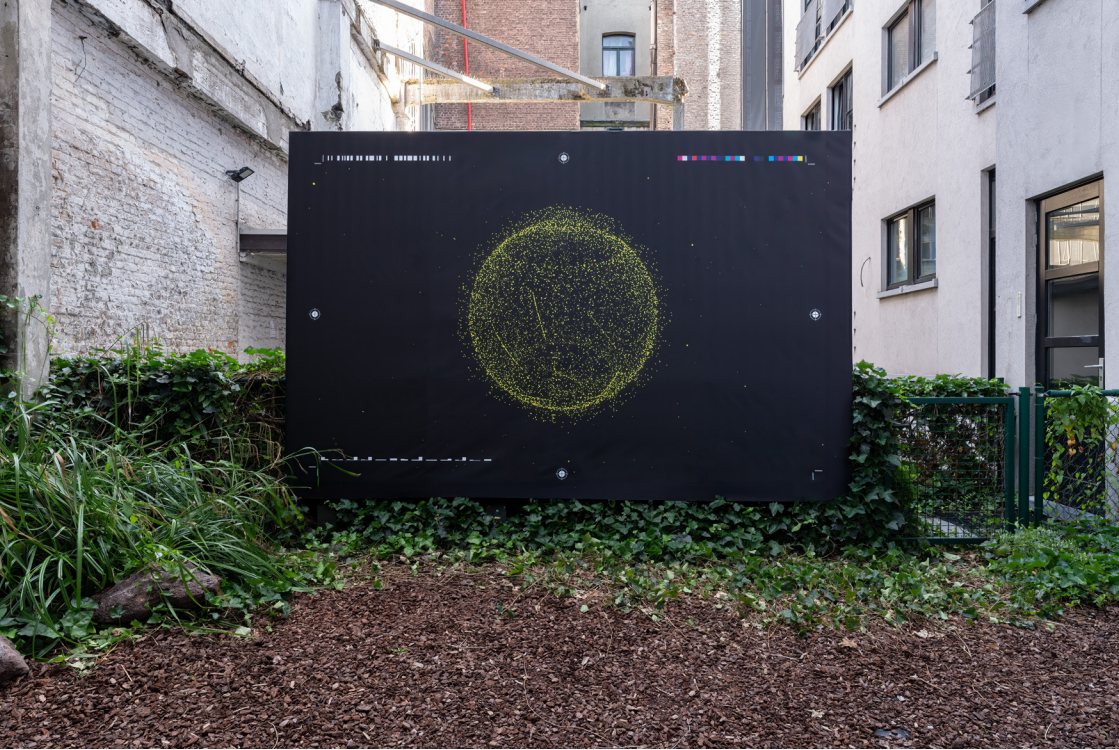
Prototype emerges as an internet-based creation that illuminates the possibilities of quantum computing. Its appearance mirrors that of a minuscule virus or an enigmatic planetary entity.

It translates a continuous flow of characters sourced from satellite data, transcending the binary confines that typify traditional computing. Through the interplay of color and the depth of 3D imagery, it evokes a vision of a digital world that extends beyond the limitations of binary representation. While the core dynamic image derives its essence from real-world data, its very form seems to liberate itself from its original context, presenting a visual depiction that surpasses its initial reference points.

Prototype is the critical investigation into the basis of digital data processing or binary calculations. The basis of human thought and action in digital contexts is based on the distinction between 0 and 1, i.e. the construction of the entire digital structure on the basis of two discrete states. Qbits in Quantum computers are forced to a binary reading state from a fluid position in the Bloch sphere. Prototype is the proposal to initiate, to integrate intermediate states, or in other words: the idea of non-binary computing, a merge of scientific speculation and artistic expression.

2022, website, interactive, various dimensions

<https://prototype.w3b4.net>



Hello, world!, All SAT

Printing all the satellites launched upon today as a yellow blob, surrounded by visual printer marks.

Printer marks serve various purposes in ensuring proper alignment, trimming, and color reproduction. Crop marks are short lines located at the corners of printed content. They indicate where the page should be trimmed after printing. Registration marks consist of targets or indicators that ensure precise alignment of different colors, preventing misalignment and ensuring accurate final printed output.

Color bars are standardized patterns of colors printed on a page to help maintain and calibrate color accuracy in the printing process. These bars enable printers to assess color consistency, ink density, and overall print quality. Color bars can also be used creatively. In a unique application, color bars have been encoded to spell out "Hello, world!" This encryption involves assigning specific colors to letters, creating a hidden message that can be decoded by matching colors to their corresponding letters.

Just as all satellites traverse the cosmic canvas, leaving their mark on the skies, printer marks and color bars leave their indelible impression on the realm of printing, where precision and imagination converge.

2023, vinyl billboard, 264 x 386 cm



Recovery

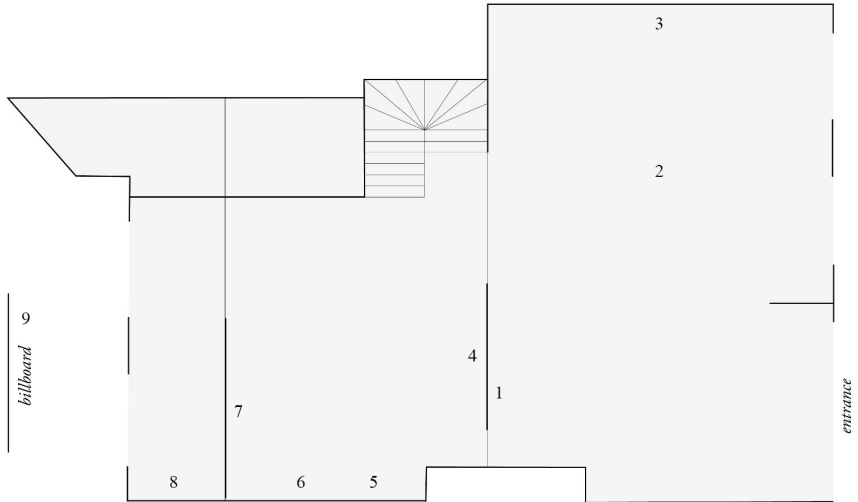
Recovery, in the context of technology and devices, refers to a specialised mode or process that helps restore, repair, or troubleshoot issues that might be affecting normal operation. This mode is particularly useful when a device is encountering problems that prevent it from functioning correctly. Recovery can encompass various actions such as restoring the device to its original state, fixing software problems, updating or reinstalling the operating system, and performing other maintenance tasks. However, it's important to exercise caution when using recovery options, as certain actions could potentially lead to data loss or unintended consequences. The recovery bar is generally a helpful tool to gauge the progress of a recovery operation and to understand when the device will be ready for normal use again.

Recovery can sometimes result in your device being stuck in an ongoing recovery loop.

2023, website, various dimensions

<https://x20xx.com/recovery>





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|---|---|
| <p>1. Chameleon
2021
Generative video</p> | <p>6. SAT-HEX
2022
html, interactive
various dimensions</p> |
| <p>2. Untitled
2023
base 2-8-16 conversion into color cubes
(Hello, world!)</p> | <p>7. PROTOTYPE
2022
html, interactive
various dimensions</p> |
| <p>3. R4aW
2023
(Requiem for a Wallet)
html, interactive</p> | <p>8. Recovery
2023
html
various dimensions</p> |
| <p>4. 0 ∞
ibmq_armonk :
4f428318-7b29-4df9-9fa9-094b15a8cb04
2023
engraved brass
20 x 20 cm</p> | <p>9. Hello, world!, All SAT
2023</p> |
| <p>5. CABLE-
2023
Animation/.SVG
on chain
various dimensions</p> | |

Joan Heemskerk (born 1968) is a Dutch contemporary artist who made WWWorks in: photography, video, software, games, websites, NFT, performances and installations. Researching the possibilities of web4 from cryptography systems to quantum non-binary computing, while making Art on the world wide web as a daily artistic practise in the cloud.

Recent exhibitions include: "w3b4", p0.nz/i Gallery, Wellington (solo)(2023); "Atlas", Foxy Production, New York (2023); "CABLE", Folia, cable.folia.app, online (solo)(2023); "WATERWORKS", V2, Rotterdam (2022); "NODOUS", JPG.space, /rosa, Berlin (2022); "Art Object", Foxy Production, New York (2022); "Better_call_mark", Galeria Fran Reus, Palma de Mallorca (2022); "Art and the Blockchain", Rozenstraat 59, Amsterdam (2022); "PROTOTYPE", NRW Female Artist Award, online (solo)(2022);

_ She is also a member of the art collective JODI >>>

JODI, or (jodi.org) – pioneered net.art in 1995. JODI were among the first artists to investigate and subvert conventions of the Internet, computer programs, and video and computer games. Radically disrupting the very language of these systems, including visual aesthetics, interface elements, commands, errors and code. JODI stages extreme digital interventions that destabilise the relationship between computer technology and its users by subverting our expectations about the functionalities and conventions of the systems that we depend upon every day. The work uses the widest possible variety of media and techniques, from installations, software and websites to performances and exhibitions. JODI's work is featured in most art historical volumes about digital and media art, is exhibited worldwide in ; Documenta-X; Stedelijk Museum, Amsterdam; ZKM; ICC; CCA; Guggenheim; IMAL; Centre Pompidou; Eyebeam; FACT; MoMi; Harvard Art Museums; Rhizome; MoMa, among others.

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