

«New Empire», a work by the French artist Lighton.

MINING

In Gardanne, Sestercé spends energy for the blockchain P. 7

METAVVERSE

Does our avatar really have look like us? P. 19



DEBATE

Tech, not really an inclusive model P. 18

QUESTION

What if the web 3 revolution was finally useless? P. 15



This special issue is dedicated to Web 3. It was driven and

funded by hundreds of enthusiasts who bought an NFT created by 20 Minutes and Capsule Corp. Labs. **It has been translated into English at their request.**



WEB 3

France unchained

Across the country, entrepreneurs are seizing on blockchain-related technologies to shake up society. P. 14

Lighton



Free the machines

This Front Page contains a typewriter. Free it by scanning the QR Code

Animation designed and produced by the agency OK c'est cool





Mathis Desport

Fiction In 2030, the virtual will be more than reality

How will the blockchain, NFTs and other Web 3 tools become part of our **daily lives in 2030**? A member of the 20 Mint community (see p.3) has imagined it

Written by M4RC

Log // date: 16/06/2030 // user: 20.100.xyz; Initiate txt.record - status: connected; mode: read;>

Vincent woke up quietly towards the end of the day, when the air became less stifling. He reflexively grabbed his augmented reality glasses and got up to get ready, his eye scrolling through the day's news on his glasses, whose data were discreetly blending with his environment. Unfazed by the latest news of the Cobalt War, he quickly checked his social networks and the price

of the cryptocurrencies he owned. Facing his mirror, he scrolled through his different augmented outfits with a finger movement. His white t-shirt, the same one for years, seemed to change shape with each gesture, a virtual tracing so realistic that one forgets the initial fabric. He stopped when he reached the jacket he liked so much. The hue changed with his mood, a true vintage piece, one of his very first dynamic NFTs. He also selected a skin care filter to reduce his dark circles and to brighten his complexion. No one had gone out without their virtual makeup in a long time. As he walked down the stairs, the music in his ears adjusted to his heart-beat, matching his energy. He loved

of the cryptocurrencies he owned. Facing his mirror, he scrolled through his different augmented outfits with a finger movement. His white t-shirt, the same one for years, seemed to change shape with each gesture, a virtual tracing so realistic that one forgets the initial fabric. He stopped when he reached the jacket he liked so much. The hue changed with his mood, a true vintage piece, one of his very first dynamic NFTs. He also selected a skin care filter to reduce his dark circles and to brighten his complexion. No one had gone out without their virtual makeup in a long time. As he walked down the stairs, the music in his ears adjusted to his heart-beat, matching his energy. He loved

this evolving song, and was glad he had invested in this artist's work. For a few tokens, Vincent had contributed not only to the creation of the album, but also to its marketing, and he received a small share of the revenue from each listen. He reinvested them in emerging talents. It was an opportunity to discover new music and allow the music scene to flourish, away from the pressure of the majors.

Lost in his thoughts, he almost hit a passerby. He stopped, ready to apologize, then stared at her. She looked... real, almost too sharp. He suspected for a moment that she was using a brand new rendering software. But her face looked so sharp and her imperfections so pretty. She smiled at him, watching him as he stood still, looking embarrassed. "Well, I know I don't have a filter, but from that to not seeing me at all.

(continued on next page)

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What is Web 3? The term covers a multitude of uses and services that form a possible future of the Internet. It is based on the principle of decentralization and on the use of blockchain technology. In short, Web 1 consisted of static sites, with few content creators and few intermediaries. Web 2.0, marked by the rise of social networks, allowed everyone to become a content creator, but this content is owned by the web giants, the Gafams. Web3 promises not to reappropriate a creator's content. Thanks to NFT technology, our digital identity is carried by a wallet, which also serves as a payment solution. With the advent of the metaverse, the Internet has transformed from 2D to 3D.

This text, and all other <20 3.0 Words > definitions, are the work of the 20 Mint community.



Wallis Desport



What is a cryptocurrency ?

It is a digital currency issued on a blockchain. Unlike a central bank currency that holds all the power over its issuance, a cryptocurrency is subject to rules predefined by immutable smart contracts. These rules govern the way the crypto currency works, so each crypto currency has its own rules. For example, one rule of bitcoin is that there can only be 21 million of them, while a rule of tether (a so-called stablecoin) is that it must always have a value of \$1.

– No filter... Really?, he stammered, still caught by her gaze.

– Deactivate your glasses, you will see well. »

He hesitated one second then obeyed, cutting any virtual overlay. The world darkened slightly, the pavement took again its color of origin, the walls of the buildings lost the texture which it had the habit of using and the signs were suddenly less luminous.

But the look in the stranger's eyes was still sparkling. The young man felt suddenly naked, because he realized that she could see him such as he was, without artifice. Fortunately, the strange lady scanned the next door wall. As she brushed the surface of the concrete with the tip of her finger, he distinguished the embrasure of a door that he swore he had never seen. « These are your filters. They hide things from you that they consider insignificant », she explained, grabbing the handle.

With a defiant look, she opened the door and darted into the darkness of the stairwell.

Without thinking, he rushed after her. The flights of spiral stairs followed one another without end, and he realized in the darkness that there

was no network, before putting away his glasses which were useless.

When they finally reached the top floor, he had lost track of time. They rested a moment, then she finally opened the door that gave access to the roof.

The sight that awaited them was breathtaking. The warm colors of the setting sun drenched the clouds as far as the eye could see, and a rosy light flooded the roofs of the city. Golden flashes glittered, seeming to cling to the windows that the last rays touched. Vincent sat down next to the stranger and let himself be sucked in by the horizon. He understood that it was this suspended moment and these subtle nuances that painters and artists from all over the world had wanted to capture for centuries. Each second of this spectacle was as unique as the mixture of the colors which drew under their eyes the present moment.

He who swore only by the cold eternity of technology and its immutable promises, thought then that the beauty resided perhaps also in the surprise of an encounter and the rarity of the ephemeral..

< End:Log // sell- memory as NFT: [Y] [N] // Price:10€ >

A (very special) special edition

Our front page in augmented reality is his work. The fiction you just read on page 2, too. Marc Horgues, aka M4RC, is the proud owner of a 20 Mint typewriter (read below), an active member of the community gathered around this project, as well as the co-founder of Ok c'est cool, «a creative agency that helps brands explore new cultures, create cool experiences, in real life as well as in the metaverse ». Like Einstein, who

said he was «more interested in the future than the past, because that's where [he intends] to live», Marc Horgues insists on the importance of deciphering technological innovations and helping people understand the changes associated with them. «This can be done through concrete and playful experiences, like this one in augmented reality, or simply through stories.» Because, he confides to us, «understanding what is happening today allows us to imagine tomorrow. Machines to write the future are good, but ideas and creativity are essential to make it more positive and exciting.»

It's up to you to see if Web 3 is scary or carries out a promise

Laurent Bainier

➡ To finance this special Innovation issue, 20 Minutes sold 999 non-fungible tokens representing typewriters in April.

Why typewriters? Because they were created to save us time and we use them today to take the time to think, to write without the lightness of the "delete" key. Technologies are mainly what we do with them. A little, also, what we think about it.

About blockchains that shake up finance, logistics, gaming, many people don't think anything today. There are other subjects more important than NFT or metavers, you may think when

opening this 20 Mint edition. Yet, the decisions we collectively make as citizens or consumers will determine the future of a promise. Will platforms give way to decentralized, transparent, and less greedy players? Do cryptos deserve more or less regulation? This magazine is a machine to describe the possibilities of Web 3. It's up to you to mint the rest.



2.3 million readers per day (newspaper), 20 million readers per month (all media, print and digital). Source: ACPM OneNext 2021 V4 study.

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Edited by 20 Minutes France, SAS with a capital of 5 776 544 €, RCS Paris 438 049 843

Shareholders: Société d'investissements et de participations (Sipa), Rossel France investissement

CEO, director of publication: Frédéric Daruty de Grandpré

Editorial Director: Armelle Le Goff

Graphic design: Agence A noir www.anoir.fr

Printing: L'imprimerie, Midi Print, Rossel Printing Company, Imprimeries IPS, RPI, GILA CIMP. Printed on paper produced in France,

Germany, Belgium and Spain from at least 95% recycled fibers, paper bearing the FSC or PEFC ecolabels or European Ecolabel, etc.

442 kg of CO2 emitted per ton of paper distributed.

© 20 Minutes France, 2022. Legal deposit at publication. N° ISSN: 2109-134X, 1777-

8301, 2269-1618, 2269-1677, 2269-1753, 2269-1790, 2269-1812, 2269-1820, 2269-3211,

2269-3238, 2269-3343, 2269-1820, 2269-3211, 2269-3238, 2269-3343 ©

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Between bitcoin and the planet, the math isn't always right. Overearth/Getty Images

Crypto-currencies, gluttons that also undermine the environment

Proof of work is a challenge for an environmentally friendly blockchain.

Clément Fages

Energy, they gorge themselves on it. That's the reputation of bitcoin and blockchains that run on mining or proof-of-work (PoW). At the end of 2017, Newsweek magazine, based on figures from the Digiconomist platform, thus predicted that «bitcoin mining will consume all the world's energy by 2020.» Roughly speaking, the bitcoin blockchain is a database that records transactions made in bitcoin. Their addition is conditional on the consensus of the majority of the network's validators. To determine who will make the

transactions and pocket the money, these validators must solve a cryptographic problem whose complexity depends on their number, and thus provide a proof of work.

Proof-of-stake to the rescue

«This process, mining, represents the main source of power consumption of a PoW blockchain: the more computing power you deploy, the more electricity consumed, the more likely you are to find the solution first», explains Hadrien Zerach, CEO of Nomadic Labs, the French company developing the tezos blockchain. The number of transactions does not directly impact energy consumption, but the rising price of bitcoin, which is rare and difficult to mine - only 21 million in circulation

- attracts more miners, which increases overall computing power. An alternative to PoW exists: proof-of-stake (PoS), where «the selection of the validator is done by drawing lots among those who have wagered a certain amount of cryptocurrency within the network. So there is no need for computing power anymore,» notes Hadrien Zerach.

Tezos, which uses PoS, would absorb in one year 0.001 terawatt hours (TWh), equivalent to the annual consumption of 450 French people, according to PricewaterhouseCoopers (PwC). At Near, blockchain PoS, «the main impact is the travels of its members», assures Marieke Flament, general manager of the Near Foundation. The subject remains undermined...

Green or not, to each his own field

C. F.

Transparent and unfalsifiable, blockchain has its advantages. Even when it uses the PoW (read above). For example, bitcoin can be used as a means of payment on a daily basis, thanks to the Lightning Network protocol, which multiplies the number of transactions recorded on each block. In 2015, Ethereum introduced «smart contracts» that automatically execute without intermediaries, which paved

the way for the development of decentralized finance, NFTs, Web 3... or automatic carbon offsetting for each transaction, adopted by another blockchain, Algorand. Ethereum, which consumes 74.6 TWh per year according to Digiconomist, is expected to switch from PoW to PoS in 2022 to reduce its ecological impact. And thus join solana, sardano, polkadot, tezos, elrond... Or near, whose Open Forest Protocol project also wants to «bring more transparency in

reforestation actions linked to carbon offsetting», according to Marieke Flament, CEO of the Near Foundation. She also mentions the potential of the blockchain to ensure better traceability on the carbon credit market. Other currencies are adding the green card to the validation process. With Ecomobicoïn, «a validator becomes eligible by performing a virtuous action, such as walking or cycling,» explains its co-creator Pascal Lafourcade, a doctor of computer science and lecturer at the University of Clermont-Auvergne. It's going to be a lot of sport!

Bitcoin's appetite is not consensus

C. F.

Will the leading cryptocurrency eat everything? Between 2018 and 2022, the bitcoin network's consumption increased from 40 to 120 terawatt hours (TWh), according to data from the University of Cambridge. That's an increase of 0.16% to 0.5% of global electricity production. At the same time, the price per unit of bitcoin, which reached a maximum of \$16,000 in 2017, climbed to more than \$60,000 in 2021. A kilowatt hour (kWh) then cost 5 cents of a dollar. By 2022, the price of a bitcoin is now hovering around \$30,000, while the kWh rate is rising. It is therefore logical to expect that the consumption of the network will decrease.

A golden competitor?

The impact of bitcoin speaks to us more if we look at other data: France consumed 473 TWh in 2019, while all the electrical Christmas decorations in the United States would consume 6.63 TWh. In other words, bitcoin's appetite is huge if we consider this blockchain useless. This is obviously not the case for its defenders. They talk about its role as a currency and a safe haven, and thus make it an alternative to the international banking system and gold. Two industries whose impact is more difficult to evaluate than that of a blockchain. This does not close the debate.



What is a blockchain ?

A blockchain is the equivalent of a register of transactions, freely consultable by anyone with Internet access.

Each transaction is recorded in a block (the equivalent of a page in a book of accounts), which is then sealed when it reaches the end of its capacity or time limit. This creates a new block (like turning a page in the book to start a new one). The blocks are linked to each other by a unique identifier, which serves as a fingerprint for the next block. This makes them tamper-proof: altering one block would change all the blocks that follow.

Consuming is not (always) polluting

Around power plants, cryptocurrency experts bet on **mining going green**

Clément Fages

Mining was almost thrown away. At the beginning of 2022, a draft regulation debated in the European Parliament, known as MiCA (Markets in Crypto-Assets), sought to ban PoW (read p. 4), deemed incompatible with sustainable development. Finally, the voted text proposes to add mining to the European taxonomy... which lists activities whose impact is favorable to the environment!

Renewable energies in sight

Electricity consumption and pollution do not always go hand in hand. For example, the Bitcoin network would have emitted the equivalent of 41 million tons of CO₂ in 2021 according to a study by CoinShares, while globally, 36.4 billion tons of CO₂ were released into the atmosphere last year, according to the International

Energy Agency. The Bitcoin Mining Council, a lobby for North America's leading miners, claims that 58 percent of the electricity consumed by mining worldwide comes from renewable energy - a figure that is disputed. I'm betting that by the end of the year we'll have 80% green mining,» says Sébastien Gouspillou, co-founder of Bigblock Group, a company specializing in mining. With the rising cost of fossil fuels, miners will increasingly turn to renewable energy. »

Surpluses are a boon

He assures that the latter, which are installed as close as possible to the power plants, exploit «mainly the surplus production». Because to absorb possible peaks in consumption, power plants always produce more electricity than they sell or use. In the absence of sufficiently profitable means to store them or to transport them to end customers, these surpluses are lost. Worse, in the case of gas-fired power plants, producers are required to burn the unused fuel. «They would rather



Les mineurs font les yeux doux aux installations hydroélectriques... Daniel Balakov/Getty Images

pay fines than invest in a system to reduce emissions,» accuses Sébastien Gouspillou. For him, mining could extinguish half of the world's flares, while the bitcoin network should be used 20 times more to absorb the waste associated with hydroelectric power plants. Mining could stabilize, and therefore optimize, electricity production, while making it easier to build profitable installations that are sometimes very expensive to maintain,» says Romain Nouzareth,

CEO of Canada Computational Unlimited, a company that operates 100% of Quebec's hydroelectric power. «Our machines are programmed to shut down on demand, in case households increase their consumption.» Still, China, intending to improve its carbon footprint, banned mining from its territory in 2021. However, after first taking in the displaced miners from China, Kazakhstan and Iran have since cut power to mining operations. It could be better.

Anima Sana in Asic Sano

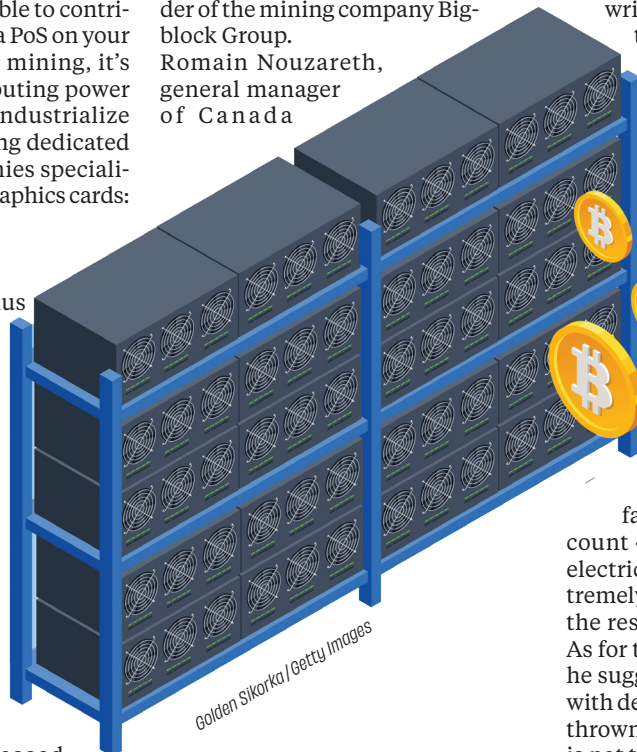
C. F.

Hunting Bitcoin at home is a time that recent miners can't know... While it's still possible to contribute to the operation of a PoS on your personal computer, for mining, it's over. The race for computing power has pushed miners to industrialize the practice, by acquiring dedicated machines from companies specializing in processors and graphics cards: the now famous Asic.

A war of figures

The bitcoin network thus generates 30,700 tons of computer waste each year, according to a controversial study published in late 2021 in the journal Resources, Conservation and Recycling. In 2020, that was the equivalent of throwing away an iPad for every two transactions made on the network... «The study is based on hardware replaced every 18 months, when each new generation is released.

But we are industrialists who seek to amortize our investments as much as possible. We have been using the same S9 [machines] for six years,» says Sébastien Gouspillou, co-founder of the mining company Bigblock Group. Romain Nouzareth, general manager of Canada



Golden Sikorka/Getty Images

Computational Unlimited, agrees: «An Asic costs on average several thousand euros. Some miners bought their equipment when the price of a bitcoin was equivalent to 60,000 dollars. It takes three months to get your machine, and the price of bitcoin is now \$30,000 [\$21,300 at the time of writing]! It's a long-term competition. Hence the fact that we use our machines for years and years to make them as profitable as possible.» Sébastien Gouspillou estimates that there are 5 million Asics in the world, and also points out that «each new generation is optimized: the S19 Pro provides almost seven times more computing power than the S9, for a consumption that has only tripled.

The «simple» recycling

The executive criticizes the fact that the study takes into account «the overall recycling rate of electrical devices, while Asic are extremely simple to recycle: it is a chip, the rest is the aluminum structure! As for the waste figures put forward, he suggests, «Compare this number with devices like TV remotes that are thrown away every year...» The issue is not to be skipped, however.



What is a smart contract ?

Smart contracts are decentralized computer programs, most often deployed on a blockchain, that execute a set of predefined instructions. They are innovative because of their autonomous and fast execution, but also because of their immutability, the blockchain being the trusted third party. Smart contracts are used in some digital asset transfers in decentralized finance.

Decentralization, what's this ?

Decentralization, as opposed to centralization, is a planning process that consists of transferring competences, data, calculation... to several distinct entities (or communities). The objective of this decentralization is to allow for greater autonomy within the community concerned and to prevent one person (or entity) from making all decisions or carrying out all actions without consulting the others.

Is the horizon for miners greener elsewhere?

The **mining** situation is not the same everywhere. More and more countries are strengthening their **energy mix** for the environment

Clément Fages

Tell me where you mine, I'll tell you how you pollute... Depending on the energy mix of the country concerned, the environmental impact of bitcoin is not the same, nor is the cost of mining. Historically, between half and two thirds of the mining «farms» were located in China. They took advantage of surplus production from hydroelectric plants in the mountainous province of Sichuan, or coal from Inner Mongolia - both of which are relatively affordable resources. As of May 2021, Beijing, under the pretext of improving its carbon footprint, banned the mining and then the use of cryptocurrencies on its soil. This led to an exodus of miners, who went to Kazakhstan and (especially) the United States. Bad move for the Kazakhs: in early 2022, they experienced an energy crisis, partly related to the increase in mining consumption.

In the United States, the conquest of the West

For its part, the country of Uncle Sam became in August 2021 the world's number one in the production of bitcoins (35.4% of the total). «States like Texas, Wisconsin and North Dakota offer advantageous tax conditions to miners, because they know that the installation of mining

farms brings employment in territories that were often in deindustrialization», explains Romain Nouzareth, CEO of the mining company Canada Computational Unlimited. The energy mix includes both coal and shale gas, as well as hydroelectric dams.

In Texas, where miners are legion, only a quarter of the energy used is green (wind and solar). Tesla boss Elon Musk and Twitter founder Jack Dorsey partnered in April to install a photovoltaic-powered mining farm there. «Solar and wind are not optimal energy sources because they are intermittent. However, to be profitable, we need to operate 24 hours a day,» notes Romain Nouzareth.

Mild temperatures, hot topic

The State of New York, which provides nearly 10% of the mining capacity in the United States, decided at the beginning of June to ban new farms for the next two years, and against the renewal of the license of those who do not use 100% renewable energy. Meanwhile, in North Dakota, oil and gas companies Exxon and ConocoPhillips are investing in bitcoin to reduce their flaring (burning off unwanted gas from oil production). Another boon for miners is the province of Quebec: 97% of the electricity consumed there is hydroelectric. But also Iceland, where 65% of the energy is produced by geothermal energy. In Norway and Sweden, the mild temperatures help to cool the mining machines. The operation is less expensive, which is a bonus for the



To go green when you practice mining, it is better to choose your country wisely. *gremlin / Getty Images*

sustainability and performance of the whole.

And here? «Today, the price of bitcoin makes mining profitable at less than €0.07 to €0.08 per kilowatt hour. In France, despite nuclear power, it is at 0.17 €!», notes Romain Nouzareth. Nevertheless, he believes that it would be «tempting to put a few Asic [mining machines] in our power plants, if only to stabilize the network and to learn. This is a matter of sovereignty. To be continued.

Money, money... legal

C. F.

From blockchain to reality, bitcoin has gone through the looking glass. In September 2021, a tiny South American country, El Salvador, became the first in the world to adopt it as legal tender. Despite the opposition of the majority of the population, or the doubts of the World Bank and the International Monetary Fund (IMF). El Salvador even plans to create a dedicated city, Bitcoin City. Last April, the Central African Republic also formalized the legal use of bitcoin. In this very poor country in the midst of a civil war, only 10%

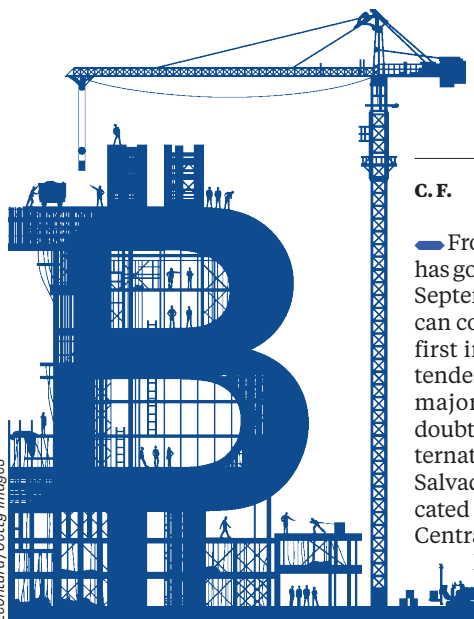
of the population has access to the Internet, 16% to electricity... «That's still more than access to banking infrastructure!» retorts Sebastien Gouspillou, co-founder of mining company BigBlock Group, which operates in the country. «People have their wallets filled with IOUs and assets of all kinds, due to a lack of cash. They even pay themselves in phone credit, since 20% of them have a phone, which is enough to house a bitcoin wallet,» he argues. The adoption of bitcoin is also seen as an attempt by the African country to emancipate itself from the CFA franc... and from France. Undermined or not, the currency is an explosive political tool.



What is DeFi? DeFi is the abbreviation of Decentralized Finance. This term covers all methods of investing, financing or growing crypto assets.

Its difference with traditional finance is the absence of a centralized controlling entity that determines eligibility for access and use of a third-party account or other banking services. Thus, the estimated 1.7 billion people still excluded from the banking system in 2017 could start investing in cryptocurrencies tomorrow, thanks to a simple smartphone or computer.

A token, what is it? A token is a digital asset, i.e. the means by which an asset is represented in the crypto universe. Non-duplicable, it can be exchanged between two parties, give access to a right of use or to a copyright. An NFT (nonfungible token) can represent a digital object with unique characteristics, such as a serial number.



Cryptocurrencies

Sesterce, the Gaulish potion



The French company Sesterce, initially a seller of mining equipment, now operates its own farms. Niserin/Getty Images

Cock-a-doodle-doo! Among the small companies that are rising in the world of mining, a Marseille-based start-up is focusing on research.

Clément Fages

Marseille, everyone's coming down! On this Monday morning in June, the temperature is already close to 30°C in the city of Jul and OM. In their premises, fifteen minutes by metro from the Saint-Charles station, the miners of Sesterce are hiding well: no proof of their presence on the intercom. But one of the mailboxes mentions «Sesterce, Blockchain & Technologies». Youssef El Manssouri, co-founder and CEO of the start-up, is receiving in shirt and suit pants (but without a tie). Behind him, and a little cramped, a dozen employees and interns are busy behind lines of code and graphs tracking the price of major crypto-currencies and boneless Asic (Application Specific Integrated Circuit) mining machines.

The art of selling

The news of the day is that the price of bitcoin has fallen below \$25,000. Not too worried, the 28-year-old entrepreneur justifies the choice of his company's name: «With Anthony Tchakerian, my partner, we are fans of history. In the Roman Empire, the sesterce was the common currency

of a large part of the population. We found the parallel with the ambitions of cryptocurrencies interesting.» Launched in 2018, Sesterce has 30 employees worldwide. It initially specialized in the sale of mining equipment, then set up its own farms and offered individuals and institutions the opportunity to invest in them. «We always wanted to operate our own machines, but it was very difficult to find all the necessary parts and information on a single site», says Youssef El Manssouri.

Thanks to the launch of an e-commerce platform for private and professional miners, «we quickly generated millions of euros in sales from large international miners, which provided us with the money to develop our infrastructure. But also to identify the most suitable locations and potential partners», he explains.

Sesterce claims to be the world's leading distributor of mining equipment over 2019-2020. That's when the startup began operating farms in China's Sichuan region, then in Russia and Canada. With a «green» line as a guideline: 100% of the energy used must come from hydraulic installations. The health crisis and the political decisions of the various countries then changed the situation. In 2021,

Sesterce dropped distribution, to focus on mining in new regions. «We are focusing on developing our parks in Norway and in the United States, in Ohio and Mississippi, where again we are using hydro power. We will also be experimenting with flares in North Dakota», says the CEO.

A Mecca for European microelectronics

He confides that he «hesitated for a long time, but we have to face the facts: methane has an impact 80 times greater than CO₂ on global warming [over 20 years]. If mining can help reduce this impact, we should not reject this possibility.» Behind the glass of his office, the television shows a map of France in the grip of an early heat wave...

EDF must buy surplus energy from private individuals at 6 to 10 cents of the kilowatt-peak (kWc) price in our country. The miners, who seek to provide tenergy for themselves at half as much, are thus little advantaged, notes Youssef El Manssouri.

The Marseille-based start-up is not neglecting France, however, and is forging partnerships with French multinationals. Its research laboratory has moved closer to the École des Mines de Saint-Étienne via the Gardanne campus, a few kilometers from the Phocaean city, a Mecca for European microelectronics.

Nicolas Paugam, director of the Sesterce lab, is recruiting about 15 researchers and doctoral students for this summer. Among the projects in the pipeline: a new, more efficient mining chip, artificial intelligence to optimize the operation of Asic, miniaturization of machines to facilitate their deployment or improve recycling... In the coming months, Sesterce should also announce a major fundraising. Before, perhaps, an empire?

«If mining can help reduce this impact, we should not reject this possibility»

Y. El Manssouri



by [AI] Flo 73

What is a NFT? NFT stands for «non fungible token», unlike a €1 coin, which is fungible because it can be exchanged for any other €1 coin. An NFT is indivisible: it is impossible to own or exchange a fraction of it. In short, it is a unique and non-interchangeable digital certificate of authenticity. By acquiring an NFT, a buyer becomes the exclusive owner of a digital asset, which can be a painting, a video, a photograph, a meme, a video game item, etc.

Tech The French touch in Web 3

Web 3 is a shift that France must not miss. **Hash Consulting** experts are convinced of French potential. **Explanation**

Will France be able to catch the wave this time? A little more than thirty years ago, in 1989, when Tim Berners-Lee published what is considered to be the birth certificate of the Internet, France was betting everything on the Minitel, invented nine years earlier by Bernard Marti and his team of engineers. This small brown cube with a black and white screen was then seen by our compatriots as the future of telecommunications. It will disappear into general indifference in 2011. After having missed the turn of Web 2.0, leaving the place to the American giants of GAFA (Google, Apple, Facebook, Amazon), France is once again at a turning point, that of Web 3.

The blockchain has its French champions

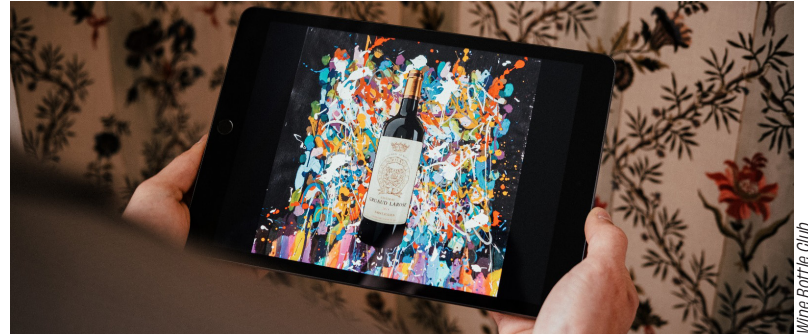
Some French players have understood this. Ledger, Sorare, Sandbox... French blockchain champions do exist. But uncertainties related to the legal and fiscal environment, illustrated by debates within the European Union around MiCa, are causing concern among

French blockchain players. They fear overly restrictive legislation, representing just one of many challenges the French Web 3 must face.

International competition is strong, especially from the United States and Asia. The projects we present in these pages prove that hope is allowed. They illustrate in their own way the

creativity and know-how of France and reflect a certain idea of French culture. Wines from the Wine Bottle Club, accompanying a tradition into its third millennium. Luxury with Exclusable. Soccer with Ultimate Champions. And a taste for innovation with Pikomit, which proposes to usher social networks into the Web 3 era. Hash Consulting, a communication and marketing agency that accompanies projects linked to blockchain and advises brands that wish to move towards Web 3, invites you to discover some of those who could be the French champions of tomorrow.

« The projects we present here prove that that there is hope »



Wine Bottle Club

NFTs with the taste of great vintages

When tradition meets innovation. Wine Bottle Club was born from the alliance between Bordeaux wine merchants and blockchain experts. After creating the BTC Wine website in 2018, which allowed people to buy wine in cryptocurrencies for the first time, CEO Louis de Bonnecaze and his teams came up with a collection of 4,926 NFTs representing great wines. Designed by artist JonOne, each of these NFTs corresponds to a bottle, including Margaux, Saint-Emilion Grand

Cru, Chateau Pape Clement, Chateau Cheval Blanc... And six rare editions entitling the holder to a bottle of carbon champagne in a Methuselah version, worth €6,000 each.

In addition to the corresponding bottle, each NFT confers upon its holder the right to discounted rates and private evening visits to the chateaux... At the end, the Wine Bottle Club will become the central point of a global ecosystem related to wine: a Web 3 sales platform of great wines (BTC Wine), the first wine cellar of the metaverse, backed by a «physical» cellar in the real world, (La Crypte du Vin in Bordeaux), as well as an exclusive NFT club giving access to numerous advantages (Wine Bottle Club).

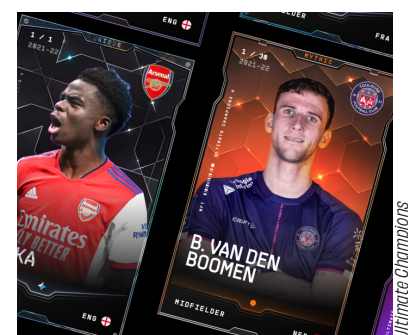
More info on winebottleclub.com

Fantasy Leagues Change Era with Ultimate Champions

The two stars on the jersey of Les Bleus remind us that France is a soccer country. And if Fantasy Leagues were born in the Anglo-Saxon world, they are becoming more and more popular in our country. Developed by two former managers of video game studio Ubisoft, Ultimate Champions intends to impose itself as a reference in this field. The game proposes to build a team of eleven players to play a championship match each week, with performances directly copied from real matches. Initially offered as a free-to-play game, Ultimate Champions aims to make play-to-earn available to the general public. With no need for a wallet to start playing, earn tokens and collect NFTs representing players' cards. It is possible to buy packs by credit card, and then discover the players they contain. Users who are familiar with cryptocurrencies and NFTs will be able to connect a wallet to fully

enjoy the experience. Partnerships have already been formed with several prestigious clubs, including England's Arsenal, and more are expected to follow. The creators of the game also aim to get involved in other sports. An agreement has just been announced with Euroleague Basketball. Sports fans will be delighted by the Web 3 revolution.

More info on beta.ultimate-champions.com



Ultimate Champions



sebban studio

is ready to hit the target



Exclusible

French luxury in the metaverse

Exclusible invites the world but also the experience of luxury in the **metaverse**

The luxury sector was one of the first to take an interest in NFTs, and Exclusible has established itself as a privileged bridge between the two worlds. Since its launch at the end of October 2021 with its first genesis collection Alpha NFT, the company founded by Thibaut Launay and Romain Girbal has chosen to use the possibilities offered by metavers and NFTs to offer «the ultimate digital luxury experience.» It has created an entire neighborhood of 150 luxury villas, as well as 30

island paradises in The Sandbox, offering various experiences (concerts, fashion shows...) to their owners, including footballer Marco Verratti or tennis player Stan Wawrinka. Events were also organized on Decentraland. In parallel, Exclusible has launched NFT collections in partnership with prestigious brands such as Bugatti, Louis Moinet watches, Amedeo jewelry, Hogan shoes, and Christofle silverware...

Exclusive access to a virtual penthouse

Its latest collection of NFTs will be launched this week: each NFT will give its owner exclusive access to a 500m² Exclusive penthouse in the metaverse. The lucky owner will be

able to decorate it as he or she pleases, display his or her NFTs on the walls, organize movie nights on a screen, or host parties with friends represented as avatars - up to 50 people can gather in the property. It will also be possible to use a VR headset or augmented reality to further enhance the experience, and NFTs will soon be able to be traded on Exclusible's marketplace, currently being launched. Brands, for their part, will be able to use this environment to offer a memorable experience to their customers, or even to close deals. After all, talking on a sunny terrace with a view of Miami, New York or Paris can be sexier than a video call in your living room.

Three questions to Hasheur

Hasheur has been democratizing and analyzing the world of blockchain and new technologies since 2016 on YouTube. He is also an entrepreneur and runs several companies in this sector.



Hasheur

What are the uses of blockchain that you find the most interesting today?

I think the best uses haven't even been thought of yet. Blockchain is a toolbox, and we're just beginning to see the possibilities it offers. And each tool itself allows multiple uses. These include community fundraising, NFTs, art, gaming, or even setting up governance models...

Are there any pitfalls to avoid when investing in NFTs?

Totally, especially since NFTs have become a real trend. The potential is so strong that we can sometimes forget that it will take years to see concrete and relevant uses develop, a bit like the Internet in its time. It is therefore necessary to get as much information as possible in order to identify the serious projects, which are in the minority today. It is also necessary to differentiate between artistic projects, which only have value for the appreciation of collectors, and initiatives that offer «utilities», access, services or even rights (such as the right to participate in the governance of a newspaper for example!). Investing without understanding the value of these assets is particularly dangerous.

What types of projects related to NFT do you particularly follow?

I'm mainly interested in the projects of entrepreneurs I'm in contact with, whose final goal is to deliver a service or an experience, like Ternoia for example. I really like gaming, and I'm close to initiatives like Dogami, Cross the Ages, Off the grid, SoRare or Aurory. NFTs also interest me for the possibilities they offer in terms of fundraising, governance or authentication. But most NFT projects are still in the development stage. And we are still waiting for a precise legal framework in Europe to have a clear vision of the limits of all these uses.

Pikomit, beyond communities

Pikomit is a Web 3 social network at the border between Reddit and Discord, federating its members around passions and collectibles in their possession. Art, manga, video games, sports... each community has its place. With Pikomit, content creators are not just users, but real actors of the platform. The platform's revenues are redistributed to users in the form of cryptocurrencies. A virtuous circle made possible by the Web 3

revolution, which will benefit both novices and experienced users.

Fully exploiting the possibilities of this new technology, the mobile application will also uncover the world of NFTs. After obtaining their free collectible, users will have access to their first VIP community and can even create their own.

Thanks to the customization allowed by the platform, this one will be unique and will be able to meet the members' expectations.

The Pikomit application can be downloaded from the Apple Store and Google Play



Pikomit

Metagellan, explorer of the metaverse

Investing in **cryptocurrencies** has become commonplace. Our guide gives all the keys to start with **caution**

On the first floor of Loïc Schapacher's museum in Decentraland, at the exit of an imaginary subway station, you will see a parasol. At the foot of this parasol, a rack. And in this rack, PDF copies of 20 Minutes that you can download to read our prose quietly. But before leaving, your avatar will raise his eyes to the sky and discover a complete building, fruit of the imagination of Metagellan, Loïc's company. He first worked on Decentraland to display collectibles in 3D and has become one of the ambassadors of this metaverse for brands, which he helps to bring into the virtual world.

The metaverse is very present in the speeches, but where are we today in concrete terms?

We're still working on environments that are still under construction, where we have a sum of bricks, but the final metaverse doesn't exist yet.

Is the virtual world and the metaverse the same thing?

Our vision is that a metaverse is a



Metagellan has graciously organized the distribution of 20 Mint and the 20 Minutes newspaper in Decentraland. CollecOnline/Metagellan

virtual world that offers construction tools. The user must have access to the code, be able to do 3D modeling and load dynamic content. It is this notion of open metavers that allows a brand to come and do business there. A Fortnite in some aspects is close to a metaverse, but it is the game editor who dictates the rules.

Why is this so important?

It's what allows creativity. In the early days of the Internet, if everything had been absolutely framed, if someone had somehow sold the websites by saying «this is the template, don't touch anything», all the uses we know today would never have emerged. If we let Meta/Facebook have total control

over the engine, everything will converge in their direction. And creativity will be killed.

Metagellan invested early on in Decentraland. Why did you make this choice?

We believed in it from the start, because we have all the creative possibilities we just mentioned. We are also launching on Voxels and we will soon announce a partnership with a new environment. We are interested in Web 3 metavers and our role is to be an intermediary for brands that want to take their first steps in the metaverse.

What does it mean to be a landowner in Decentraland?

In 2018, the creators of this metaverse

auctioned off parcels of land in their universe as NFTs. Then they created a toolkit that allows any landowner to create what they want on their own plot by modeling it in 3D with fairly traditional tools, especially for 3D architects like those working for Metagellan.

And to discover this world without being an owner?

It's very simple... All you need is a PC. You connect via your browser, choose your avatar and start exploring. Your avatar will be able to wear clothes, accessories, what we call wearables (which take the form of NFT), and it is this dynamic that creates a specific economy, interesting for brands and marketing campaigns.



DJ Buffalo : « Innovate from the comfort of your home »

— One foot in the clubs, the other in the metaverse. DJ for twelve years, Buffalo has been playing real and virtual concerts. A way to develop his creativity.

You will perform on Wednesday 21 September in «Decentraland» for the 20 Mint. Is a special DJ set planned?

I always try to stick to the theme of the evening by mixing my wild west universe. Thanks to 3D, you can imagine anything. Why not a newsstand? Everything is possible...

Why did you decide to do concerts in the metaverse?

By force of circumstance! In 2020, the Covid-19 forced me to stop playing

gigs in clubs. At the same time, I discovered a world under construction in the metaverse with virtual nightclubs, events that hired DJs... That's why I created the «Metavers Tour» - a 3-month concert tour in «Decentraland» - with radio FG in October 2021. It went so well that I didn't stop anymore! Today, I play every other date in the metavers.

What are the advantages of performing in the metaverse?

The audience has an incredible thirst for creativity. It's an opportunity to innovate from the comfort of your own home and at a lower cost. For a concert, the logistics can be very heavy: distance, transportation and

accommodation costs... In the metaverse, these constraints disappear. For example, using a green background allows me to constantly renew my show. We are only at the beginning but innovations are coming.

Are virtual concerts destined to remain a niche?

I don't think so. They will neither be a niche, nor a potential competition for clubs. Like all innovations, it will complement the real thing. Nothing prevents artists from organizing two simultaneous parties - real and virtual - to double their audience and their income. That's the whole point of the Internet: it allows you to reach a wider community.

interviewed by Anaïs Cherif

7 Uses of NFTs

NFT: Non-Fongible-Token

UNIQUE Digital File
Stored on 1 BLOCKCHAIN

Wich **CANNOT** be EXCHANGED
BUT €10 = €10

→ **NFT** PROPERTY title to a **NON INTERCHANGEABLE AUTHENTICATED** digital File

1 COLLECTION

A NFT can be

- VERIFIED
- AUTHENTICATED

Facilitate the PURCHASE & TRADE on dedicated marketplaces

ACCESS to the SALES HISTORY

2 TICKETING

SECURE Ticketing PLATFORM

DIRECT link between ARTISTS & FANS

TRANSPARENCY

VALUATION of NFT TICKETS (VIP access, backstage...)

3 PLAY to EARN

The NFT becomes a CHARACTER that you have to DEVELOP to EARN

Example **DOGAMI**
Each NFT is a VIRTUAL PUPPY that we must TAKE CARE of

4 CREDITS / LOANS

INVESTORS can use their NFTs as COLLATERAL to borrow FUNDS

IMMEDIATS, AUTOMATED & DECENTRALISED LOANS

5 CLUB MEMBERSHIP

Become a MEMBER of a **NFT CLUB**

- ATTEND SPECIAL EVENTS
- ACCESS to LIMITED EDITION PRODUCTS
- BENEFIT from UNIQUE SERVICES

6 COUPONS

STORED in a DIGITAL WALLET

ACTIVATING/DEACTIVATING DISCOUNTS

COUPONS EXCHANGE on MARKETPLACES

VIRTUAL COUPONS for the METAVERS

7 WEARABLES

Possibility to BUY VIRTUAL ACCESSORIES in **NFT** to DRESS your AVATAR in the METAVERS

Ray-Ban, D&G, NIKE

The background: The 20 Mint community was asked to choose 20 Web 3 specialists they wanted to see featured in our pages. Among them, they chose John Karp, whom we invited to a collaborative interview on Twitch. Some of the questions were asked beforehand on the 20 Mint Discord server, and others were asked live. Here is a part of the interview that you can find in full on 20minutes.fr

John Karp Co-founder of the NFT Factory

« Crypto-artists are geniuses inventing the art of the 21st century »

Interviewed by
the 20 Mint community

Every morning on the ClubHouse app, John Karp hosts with Remy Peretz the best French-speaking show on NFT, the NFT Morning. With his sidekick, he co-wrote NFT Revolution, a reference book on the subject. And with 125 other enthusiasts, he founded the NFT Factory, a place dedicated to the movement in the heart of Paris. Who better than him to tell us about the fever for non-fungible chips?

CEDRIC BUNS : Did you imagine such a success when you started to be interested in NFT?

It went by so fast! We started writing the book and the show in February 2021. What I went through, this burgeoning notoriety, is what everyone went through in this universe in 2021. For everyone, it's been rock 'n' roll. There were huge opportunities that were created for everyone. I've been on a roll and I'm still on a roll without thinking too hard.

BIT-LOAD : Can you explain your background?

I was in tech. With BeMyApp, we were the world leader in hackathons. At the beginning of the lockdown, I was working on an online conference on blockchain and I'm talking to the attendees and one of them says «this week I'm buying a land [virtual land] in a metaverse. I was laughing my ass off. I thought, «I've got to try this. I bought some, it was fun. Two months later, they tell me: «You saw, your lands have gone 4x». Now I'm interested. I realized that the metaverse had a complexity that I couldn't grasp right away, but I also realized that there were artists who were geniuses. I start to dig...

20 MINT : Were you interested in art?

Not especially. Let's say, a general culture. But there, I had found the art that spoke to me. I understood that they were geniuses who were inventing the art of the 21st century with this new brush that is the



«A year ago, when we were talking about NFT, the art world was holding its nose. This is no longer the case.»

industry, there is a backlash from some gamers against play-to-earn. They think that playing is playing and don't want it. They may be right, it's a world

that is still in search of a solution. The idea will mature, but one day there will be the right project, which will break the barriers and convince everyone. It takes time but I think that everything is going in the right direction.



What's a metaverse ? A metaverse is a virtual, open and persistent universe. These worlds, generally in 3D, allow visitors to interact with each other through a customizable avatar. Several visions of the metaverse are currently in conflict. Meta for example (formerly Facebook) proposes a centralized metaverse and sets all the rules: architecture, social interactions, commission on sales (50% announced on digital objects...). In contrast, metaverse from the Web 3 world are decentralized, free and interoperable. They also include the principle of ownership through the use of NFT technology. For example, Decentraland has its own cryptocurrency (mana), its virtual lands take the form of NFTs, its governance is a DAO, and its storage protocol is based on IPFS (decentralized storage). Often mistakenly equated with a video game or virtual reality, a metaverse allows you to be the actor of your own story by buying your land, modeling your infrastructure, starting your business...

computer. An art with, of course, visuals, 3D, editing, but also programming, which means that you can make programmable art, collective art, that you can play, etc. It's a revolution, a necropolis. It is a revolution, a neo-renaissance.

OXAWAK : What steps will it take for the general public to associate NFTs with real

utilitarian concepts and not purely speculative projects?

I think it takes time. Beeple [an artist who sold an NFT for \$69 million] was 15 months ago. We're in year 2 of NFT, and there's already a lot of development. A year ago, when we were talking about NFT, the art world was holding its nose. Today, not a single person in the art world is completely closed to NFT. In the video game

PAS VOTRE CLÉ, PAS VOS CRYPTOS.

Gardez vos cryptomonnaies,
En sécurité et sous votre contrôle.

Les cryptomonnaies sont
associées à une clé privée.
Si vous n'avez pas le contrôle de
cette clé, vous n'avez pas le contrôle
de vos cryptomonnaies.

Votre PC et votre mobile
ne protègent ni vos cryptos,
ni vos NFT, ni vos actifs du Web3.

Sécurisez vos cryptos
avec un [LEDGER]



The 10 favorite NFT projects of the 20 Mint community

01 A BIG CAST IN THE METAVERSE

Cross the Ages is not a simple digital card game. It is a dystopian saga in seven volumes written by virtuosos of fantasy literature, such as Arnaud Dollen and Alain Damasio. Created by the Marseille-based video game publisher PixelHeart, this free game allows players to compete in the metaverse to win NFTs. To build this universe, Sami Chlagou, its founder, has surrounded himself with renowned artists such as the illustrator Joshua Cairros («Star Wars», «Lord of the Rings» and Game of Thrones) or the composer Gyom Amphoux, four-time Emmy Award nominee. On the platform, players can rent, trade and sell their cards online, but also transform their virtual objects into physical collections. A project with titanic ambitions, which should also serve as the basis for a movie and a series. Definitely worth following!

02 Eboos says hello to beginners

« This will probably be your first NFT but certainly not your last... », promises Eboos on its homepage. This collection of 8,192 unique NFTs is aimed at the curious who want to discover this universe without breaking the bank. To get an Eboo, users can «mine» an NFT, i.e. create it on the blockchain, or buy one on OpenSea, a decentralized platform for buying and selling these digital objects.

03 Sustainable fashion 3.0



At Kalissa, each sweater or T-shirt sold is associated with a unique NFT, which acts as a forgery-proof title, in the form of a QR code and RFID chip. Thanks to that, the start-up can guarantee its pieces for life by allowing their owners to send them back if they are damaged, or no longer the right size, to receive new ones.

Credit : Kalissa

NFTs to save the bees

« The bees are no longer safe on our planet and they have come to seek refuge on the blockchain! » alerts HiveFive on its website.

«They are waiting for generous Beeholders to collect them, train them and partner them with other bees to create a virtual hive in our community metaverse.» HiveFive's promise?

Build a real hive for every virtual hive created online...

And send a jar of its honey to investors six months later. By tipping the NFT trend toward philanthropy, this project shows that virtual objects associated with the real world can have a positive impact on it, and represent new avenues of funding for charities..



04 THE STREET ART COMES OUT OF THE STREETS

Streetlab.io bridges the gap between street artists and NFTs. Unlike others, this project is not limited to «tokenizing» images of physical works. The platform also encourages artists to build digital collections to make its initiative a creative space. The goal? To take street art from ephemeral to eternal. *Credit : Yesok / Streetlab*

05 Cats and stars

Katmonstarz is a brand built by its own community. You don't need a lot of money to participate: the project relies instead on everyone's skills - in marketing, design, communication, etc. - to evolve the brand. To get users on board, the founders have created a universe where cats must join forces to live in peace with the stars on the planet Ethereum, after a catastrophe that separated them.

07

Financing sustainable development

With its 10,000 Cborgs, the Swissborg platform invites you to put on your superhero cape to fight against global warming. To save the Earth, a «non-fungible planet», interested parties can invest in one of its characters, and thus finance projects related to ecology.

08



LEARNING IN THE METAVERSE

The educational robot Winky, created in 2017 at Polytechnique, now has its own universe: the Winkyverse. Created by the company Mainbot, this metaverse relies on a game-based pedagogy while introducing children to new technologies. A dedicated cryptocurrency evolving in this space. *Credit : Winkyverse*

09

A WHOLE ECONOMY IN A VIDEO GAME

In the shooting game AfterLand, the principle is simple: you must survive to earn NFTs. These collected resources allow players to improve their character or their home, but also to create machines or develop their economy. The acquired tokens can be resold on the game's market.

10 Attacking CO₂ emissions

To fight global warming, CarbonAble is creating NFTs. While this may seem like a crazy initiative, it allows for the financing of environmental projects. In exchange for its tokens, the start-up offers investors plots of land, accompanied by concrete acts of regeneration of nature. Each NFT is associated with the sale of carbon credits, allowing the acquiring companies to improve their carbon footprint and reach, in the best case, neutrality. The first collection, which supported a reforestation project in Costa Rica, was a great success: all the NFTs were gone in a few seconds. The last one proposed 360 plots of 500 m² on the island of Colon, in Panama, to restore a mangrove.

Disclaimer : The 20 Mint community has elected its darlings but make your own opinion. Before investing in NFTs, always do your research.

PAGE CREATED BY HÉLOÏSE PONS



The end of the myth of « Promise us »

The initial promises of Web 2.0 have been **betrayed**. Why should it be any different with **Web 3**? Answers from two experts

Laure Beaudonnet

As revolutionary as Web 3 is, there is little chance that it will not also be perverted as it is used. The 20 Mint community has uncovered a number of questions that blockchain technologies will raise. Philosopher Mark Alizart and Sajida Zouarhi, engineer and blockchain expert, try to answer them.

How can we avoid the proliferation of fake news and online hate in a decentralized world?

Sajida Zouarhi : « With Web 3, I can have identity information in my digital wallet. Also, reputation can unlock things. One could imagine that a person with a good reputation could have access to a comments section. On the contrary, a huge troll might not have access to this feature. Having a Self Sovereign Identity where

you can use your own identity, your own key (public and private) to interact with websites of your choice, is a huge emancipation. »

How can we avoid falling into a censorship regime with decentralized organizations (DAOs) that operate on the one token = one vote model?

Mark Alizart : « A DAO creates its own rules. Imagine, a museum that decides to become a DAO. You don't have to replicate the current scheme that gives so many tokens [tokens, i.e., digital assets that give you a voice] to

« Democracy solves more problems than it causes. »

Mark Alizart

patrons and the state. You can decide that artists have tokens or that the most frequent visitors have tokens. DAOs are a natural evolution of the democratic functioning of our societies. I rather want to see history moving in the direction of more democracy. And I trust that democracy solves more problems than it causes. »

Can't the use of complicated terms slow down the general

public's support for Web 3?

Mark Alizart : « With Web 2, we already talk about the digital divide, digital illiteracy, so imagine Web 3. It is indeed a risk to see a kind of intellectual oligarchy settle in, which has the capacities or the social insertion to master relatively complex tools. The solution would be to design better interfaces. We have forgotten, but twenty years ago, sending an e-mail was not obvious. Soon it will be like AOL in 1995, there will be a playful home page, and you won't even know what's behind it. »

How do you prevent Web 2 players like Meta (ex-Facebook) from betraying the Web 3 philosophy ?

Mark Alizart : « Indeed, the saddest thing that could happen to Web 3 is to be a fake Web 3. I don't believe in Facebook's ability to simulate decentralization. Rather, I believe in the risk that crypto users themselves will prioritize efficiency or speed over decentralization.

We need to go back to the fundamentals of blockchain. Satoshi Nakamoto created bitcoin in 2008 at a time of great economic and financial crisis when people were wondering whether they would be able to tap into the accounts of individuals. This situation never arose and the question of the resilience of decentralization never arose. This is where decentralized protocols will prove their worth. It may be in blood and pain that crypto users and others will come to the conclusion that this was a good idea. »

Nothing personal, Web 2.0, but we want our data back

— This is one of the great promises of Web 3 : to give back to users the power over their personal data. If the security of digital data was sidelined in the origins of the Web, it's because it quickly became the gold of the 21st century. « Those who were building this Web put in place what they needed to achieve commercial success, and that relied mostly on advertising », says Sajida Zouarhi, Blockchain expert.

The Vetri application experiments with what could be a Web 3 approach to personal data. The user decides whether or not to open his personal information to receive targeted advertising and, by the way, he is paid for it. All this, without the data ever being revealed.

«The Vetri app is like a safe. Even if I choose to share it, no one sees the data », says Jonathan Llamas, CEO of the Vetri Foundation. When a user downloads the app, he or she is given opinion surveys for profiling and get paid for his or her time. Tomorrow, it will be the same for data. And just because we do profiling doesn't mean we know who the user is. »

L. Be



Minting, what does it mean ?

Minting is the action

of creating an NFT on a blockchain. The NFT then becomes visible on the blockchain

and is, in fact, traceable, unalterable and inviolable.

The mint is correlated

to the signature of a smart contract, validating the creation of the digital object to which it corresponds.

The mint of the NFT can take the form of a random generation, it will then be necessary to wait for the «reveal» phase to know the details of its NFT and perhaps discover rare traits.

Caution should be exercised during the mint phase.

Indeed, when signing and creating the NFT, authorizations are transmitted.

Make sure that the site you are minting on is authentic.



Clément Téqui and Martin Oliviero (well, their 3D avatars), two of the four co-founders of the Terno blockchain.



FOCUS Machines and capsules

Terno is a French blockchain with a worldwide reputation developed by Capsule Corp. in Biarritz. Its little Parisian sister, Capsule Corp. Labs, is halfway between being a start-up studio and a Web 3 consulting firm. It supports many companies, including 20 Minutes and its 20 Mint project, MMA champions, and family notaries. This double-page spread is an opportunity to look at the Terno ecosystem's promise and achievements.



Terno « NFTs at the service of utility »

Terno blockchain puts NFTs at the heart of digital property and its transmission

Interviewed by Romane Pellen

Four dads for a blockchain. With two other partners, Clément Téqui and Martin Oliviero have co-founded Terno. The first is CEO of the small sister company Capsule Corp. Labs, while the second is director of operations of the big one. Explanation and exploration.

Can you introduce Capsule Corp. and its sister company Capsule Corp. Labs?

Capsule Corp. carries the development of the Terno blockchain. The Labs is the operational entity of the blockchain, i.e. the main developer of the applications that are built on our blockchain. It consists of two branches. On the one hand, it's a company supporting start-ups wishing to build new NFT projects, offering necessary IT, marketing, and design development services. On the other hand, a consulting firm and service provider that assists large accounts, such as notaries or 20 Minutes, in understanding the challenges of NFT and the implementation of use cases.

What makes the Terno blockchain

unique?

It is an open source and decentralized blockchain that is entirely dedicated to NFTs. It has two unique features. The first is to consider the NFT as a container in which additional data can be stored (photo, video, wallet key...). The second is the transfer protocol aspect. This means that an NFT containing digital data can be sent to a recipient after ten, twenty or thirty years. Our vision for the future market is that NFTs will become more and more useful. In our opinion, it will become the jpeg or mp3 of tomorrow. A new standard to create a real digital property for users.

Is this not the case today?

No. Today, we are mere tenants of all the digital assets we handle. Thanks to NFTs, we are moving towards digital ownership. The NFT becomes the container in which we will store data that we own. And it is because we become the owner of this data that we want to be able to sell it. This is why we have imagined different transfer protocols to trigger the sending of NFT to a third party at a chosen moment. For example, the D-Day allows you to program a precise date, the Count Down allows you to activate a countdown before sending or the Death Protocol allows you to create an NFT whose content can only be accessed after the creator's death.

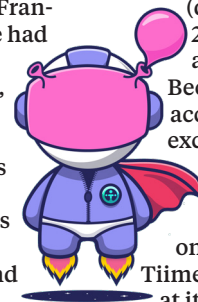
With Terno, Tiime is money

«Time is crypto,» Benjamin Franklin might have written if he had lived in our time. This same idea is behind Tiime Engine, an application developed on the Terno blockchain. This platform offers its users to earn Tiime, a reward token, by completing various missions. If you don't want to miss out on a new task, and the corresponding earnings,

it's best to follow Tiime Engine on social networks and keep an eye on it. To increase your rewards, or for the simple pleasure of collecting their little colored balls, the possession of at least one Tiime

(deployed on June 24 and 25 on tiime-engine.com) is also recommended.

Because the Tiime, once accumulated, can then be exchanged for NFTs or CAPS (the token of the Terno blockchain), during special events organized once a month: the Happy Tiime. It's time to take a look at it.



A time capsule that will mark its time

R. P.

Have you ever thought about transmitting your digital data? It will now be possible thanks to the Time Capsule application, developed by Terno. Imagine an NFT in the form of a capsule, into which you can slip photos, videos, music, a will or even the keys to a wallet. Following an event that you have previously defined, the sending of this NFT will be automatically triggered.

As soon as it is received, the people you have chosen as recipients will become the sole owners. To create this new concept of digital data transmission, Terno has developed two

major innovations in the Web 3 universe, the addition of data to an NFT and reinforced security. «It's a more sophisticated NFT than what exists today, because we use the most advanced technologies,» emphasizes Benjamin Arthuys, CPO of Capsule Corp, to reassure any potential reticence.

Thus, the capsules are encrypted. Only a key, decentralized on different servers around the world, allows decryption. The official launch date of the application has not yet been revealed. But get ready to get your digital assets on board the Time Capsule.





Between tokens and takedowns

Mixed martial arts (MMA) enters the world of NFT, with the trading card game of MetaFight

Romane Pellen

MetaFight is first and foremost the story of a meeting, unexpected to say the least. That of Not Found Token – a Web 3 consulting agency – with the world of MMA, mixed martial arts. «As a lawyer, Julia had met fighters, including Cyril Gane, and other MMA players», explains Thomas Chauveau, co-founder of Not Found Token and MetaFight with Julia Mahé. Together, they learn about the place of this discipline in the world. «We realized that the NFT technology seemed to fit with this combat sport. That's how the project was launched. The concept? On

the one hand, there is a section dedicated to collectors, with cards of different levels of rarity to collect. Each of them is an NFT and represents a professional MMA player. On the other hand, there is a section dedicated to play and earn enthusiasts, which allows the cards to be used to compete in different leagues, depending on the fighter's level in real life. «A player who can't afford a card, will be able to rent it from a collector very easily», the two creators emphasize.

«Don't want to make money on their backs»

Today, people who have a pass or who are whitelisted can already discover the first mechanics of the game on Protofight. While waiting for the opening of the marketplace in July, Thomas and Julia are actively building their community. On May 20,

they organized the first live broadcast of a virtual reality MMA fight in the metaverse. An experience that was a great success and that they intend to repeat on June 25.

Fallen under the spell of MMA, they want MetaFight to benefit both fighters and other actors of the discipline. «They are very poorly paid, deplores Julia. So, the idea is not to make money on their backs, but to include them in the ecosystem so that they can live from their sport. And it doesn't matter where they come from.

This international game already has about twenty fighters of different nationalities. For those who dream of owning the card of a world-renowned fighter, like Conor McGregor, have patience. Another fight is being played out outside the cage, that of negotiations.

MafiaFoot plays in the big league

R. P.

Take three long-time friends. Mathias Garand, Jérôme Moret and Cyril Leblanc. Add three video games they dreamed of seeing in one. Fifa, Football Manager and SimCity. Sprinkle NFT on top of it. You get MafiaFoot! An immersive strategy game that allows you to buy NFTs of 3D soccer players, participate in tournaments, build a stadium and infrastructures, like a food truck or a hotel, to generate

MFFs, the game's cryptocurrency. The price of these NFTs, inspired by famous professional footballers and put on sale in July, vary from \$25 to \$500 depending on the rarity of the card, the level of the player and its potential for evolution.

Note that in order to compose a team, five players are required. As in real life, each player will be able to see his or her value evolve by winning matches



or by increasing the capacity of a training center. «The idea was to create a game where you can have fun and make money», says creative director Mathias Garand, with an eye on the World Cup. «We would like to release a first version of the game at that time. MafiaFoot, the ball is in your court.

With not.IT the notary's office goes Web 3

R. P.

Gwendal Texier (photo below) is trying to bring the notary profession into line with the times. Himself a notary in Ille-et-Vilaine (Brittany), this new technology enthusiast is at the head of not.IT. Since its creation in 2019, this technology endowment fund has three objectives: to promote new technologies



C. Targosz

in the notary's office, to create relationships between tech players and notaries, and to develop projects that meet their needs or those of their clients. Each month, ten to fifteen notaries from the Ille-et-Vilaine departmental chamber meet to define a problem and try to find a solution. «Recently, we worked with Ternoia on the transfer of digital assets. Today, 7% of French people hold crypto-currencies. Inevitably, there is the question of how to pass on these funds if one of these holders were to die», illustrates Gwendal Texier, whose endowment fund is not intended to do business, but to pursue general interest purposes.

«We will not be supplanted as long as we accompany and use these new tools.»

«Being in tune with our society»

A few years ago, the appearance of blockchain may have made some notaries tremble, worried that their profession would disappear under the weight of innovation and new technologies. The Breton lawyer, however, is reassuring. «We will not be supplanted as long as we accompany and use these new tools. We are undoubtedly at the dawn of a revolution that is every bit as important as the Internet. Notaries must listen to the world around them to remain in step with society.»



A more inclusive tech world is not to exclude

More and more women's **communities** are working to make this world more **inclusive**

Laure Beaudonnet

«As soon as I share a technical publication about NFTs on LinkedIn, I receive scornful remarks from men under my posts. On this network, when a woman talks about Web 3, the criticism is measured but you can see the mansplaining», describes Léa C., a Web 3 consultant and crypto investor. On Twitter, where clash is the law, for women, it is sometimes worse. It goes quickly from arrogant comments to public humiliation. As a result, they don't feel like expressing themselves anymore. That's normal. «Twitter is a distorting magnifying glass. It is a digital public space by default, very agonistic, if only because of the language constraints,» observes Laurence Allard, a sociologist of digital uses. We are more into interpellation, clash.

Should we conclude that the crypto world treats women badly? It's not so obvious. What is certain is that they are quite absent from Web 3. Whether in Discord – a messaging platform originally designed for video games, where all the people who support it interact – or events such as Paris NFT Day organized at the Palais Brongniart, last April 12, it is difficult to cross a woman and, more broadly, minorities, in the middle of a fauna of young white males.

In the early days of Web 3, new faces, especially women, were welcome

And when some women timidly try to make their way, they are not always very well received. During Twitter Spaces [live audio conversation spaces on the social network] for the ethereum blockchain and PFP projects [NFTs that serve as profile pictures on social networks], what often comes up is women being cut off, rude remarks », observes

Cabline*, curator for the Objkt platform hosted on Tezos, another blockchain that allows for the creation of NFTs. Enough to discourage them from speaking publicly.

«Don't repeat the biases of Web 2»

While Tezos seems to be more open, Cabline notes that female artists are struggling to find their audience in the crypto-arts community. «When artists refuse to participate or feel uncomfortable presenting their work on Twitter Spaces, most of the time it's women. And the most valued works on the market are predominantly by men », she notes.

According to a study published by ArtTac-

Web 2», shares Camille Lambert, Web 3 consultant and business angel. «I have seen as much sexism if not more in traditional companies, confirms Claire Balva, director of Blockchains and crypto at KPMG France. In the media, I've been mistaken for the assistant of the expected speaker on set... I don't feel like the crypto community is more sexist.»

For this pioneer, the face of the business has changed a lot since she arrived in 2015. «It was the nuclear winter of cryptos. Those who were there were geeks. They were there out of ideology or out of technical love for the subject», Claire Balva recalls.

At that time, they were quite happy to welcome new faces, especially women.

The integration of minorities may come from the communities, the beating heart of Web 3

They were not necessarily business-oriented. Since then, the ecosystem has diversified.

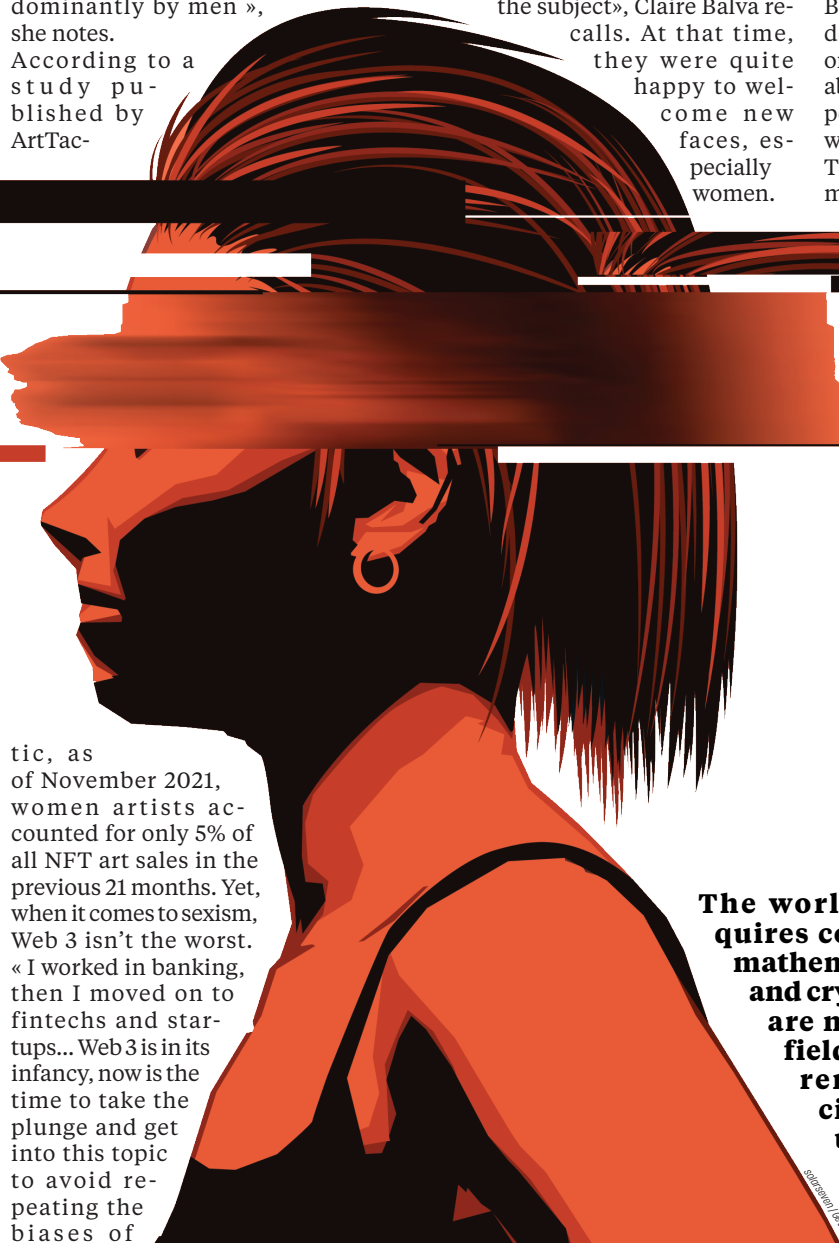
But not everything is done. Web 3 is based on communities and this may be the salvation of minorities and laymen. Most crypto projects, including 20 Mint, are attached to a Discord. Some Discords like Crypto Chicks, Women Rise, Sad Girls Bar, or World of Women, which aims to build an inclusive Web 3 through its NFTs and community, are helping to transform the crypto world.

An ecosystem to support women

«If in Web 2 you can get heckled on Twitter for example, the Web 3 ecosystem seems to me more supportive, especially thanks to the emergence of strong communities of women where to find support and answers or communities of experts on specific topics », says Camille Lambert. Because it is not always easy to understand the crypto gobbledygook or to grasp the technical tools. Being able to rely on benevolent people, especially in a world that tends to see women as intruders, is not a luxury. The more pedagogy and gender communities there are, the more comfortable they will feel about finding a place. The gender revolution has not yet been made in the crypto community, but it's not too late.

tic, as of November 2021, women artists accounted for only 5% of all NFT art sales in the previous 21 months. Yet, when it comes to sexism, Web 3 isn't the worst. «I worked in banking, then I moved on to fintechs and startups... Web 3 is in its infancy, now is the time to take the plunge and get into this topic to avoid repeating the biases of

The world of cryptos requires computer science, mathematical knowledge and cryptography, which are not very feminine fields,» analyses Laurence Allard, a sociologist of digital uses. These are disciplines known for a deficit of women.»





Just as we can express our personality through our clothing choices, avatar customization will serve to distinguish us... online. *Jacob Lund / Getty*

Avatar In the metaverse, beauty is also pixel deep

Each player can decide on the **traits of his avatar, his incarnation in the metaverse. A choice that says a lot about us.**

Mathilde Saliou

In the metaverse, what will we look like? A cartoonish version of ourselves, Mark Zuckerberg predicts. During the demonstration of what Horizon Worlds would allow, in October 2021, the public could observe a 3D representation relatively similar to the boss of Meta trying on a skeleton or cosmonaut costume. If some people thought the presentation was already cheesy, a market could open up: at the end of 2021, the start-up Wolf3D raised 13 million dollars for «Ready Player Me», its platform for creating avatars for the metaverse. In one year, it claims to have gone from 25 to 1,000 corporate clients.

Liberty, identity

But then: realistic or delirious, our metaverse representation? «The appearance of the avatar must remain the choice of the user,» says Maude Bonenfant, a professor at the University of Quebec. Metaverses are influenced by the world of video games,

and gamers are used to creating characters that don't look like them, either because the world is fantastic or because it's their fantasy. Verisimilitude doesn't matter as long as the rules of the digital space are understood by everyone,» she explains. What matters is how you interact, the connections you make.»

Professor at Télécom SudParis, Maryline Laurent asks the question from an economic point of view: who would benefit if our avatars were realistic? For Meta, whose business model is based on data capture, «it's not so much the way I present myself as my entire journey that is useful: what I do, what I buy, the way I interact, everything is recorded to refine the advertising. This is followed by the issue of data security: «The closer you draw a digital identity to the real thing, the greater the risks.» If, for example, you share your political or religious opinions, this will be sensitive data that

«The question that will arise is less the resemblance than the possibility of using the same avatar everywhere.»
Maude Bonenfant

you will have shared with the manufacturers of the universe in which you evolve. «The question that will arise is perhaps not so much the degree of resemblance between your avatar and yourself as the possibility of keeping the same character from one metaverse to another,» emphasizes Maude Bonenfant.

An avatar to link them all
A bit like taking the same pseudonym on each social network, to remain identifiable. In this case, the interest of metaverses registered on the blockchain becomes obvious: in the land of NFTs, economic models closer to those of video games, where one buys skins (equipment) and objects, could develop. «Under a pseudonym or not, we always try to stand out, to be unique,» continues the teacher. With limited edition accessories, the trick will be easily played. The question of social acceptability remains: at Meta, the stated goal is to allow Internet users to find themselves in family or professional contexts. But in these contexts,» points out Maude Bonenfant, «it is not said that it is well seen to show up with a horse's head or any other unlikely profile. Even if it's virtual, the reality remains... reality.

An avatar to link them all

evolves... » It's a way for freelancers to get fully involved in their work while remaining in control of their creations. According to the entrepreneur, this model is very different from the Web 2.0 model, characterized by the rise of social networks and the control of Gafam (Google, Apple, Facebook - now Meta, Amazon, Microsoft): basically, why let Meta get richer when it's the user who produces, likes and interacts? Jessica Soueidi, a self-employed artist, joined Web 3 to access buyers and the public directly. It worked so well that she created the community Art from Future, «to share her accumulated knowledge with other women artists. If she sometimes suffers «mansplaining, unjustified suspicions of incompetence», she is nevertheless convinced, like Marie Robin, that everything is to be built in Web 3. That's why they both want to convince more women to join: to create a world that is as diverse as it is offline.

Freelance women get organized

Mathilde Saliou

«There's a talent shortage, so we're looking to open the doors of Web 3 to those who don't know about it.» Marie Robin is the founder of the Fleet collective and her goal is simple: to show freelancers the opportunities that blockchain offers. One target is close to her heart: women, for whom she is organizing a pitch session on June 27. Web 3, ideal for freelance women? At the intersection of tech and finance, it is nevertheless not known for its diversity (the network of audit and consulting firms KPMG has 40% of female crypto investors in France).

«A real impact»

But Marie Robin sees in Web 3 an unparalleled potential for community building: «With decentralized autonomous organizations (DAOs), you can take a stake in the project you're working on, have a real impact on how the company



evolves... » It's a way for freelancers to get fully involved in their work while remaining in control of their creations. According to the entrepreneur, this model is very different from the Web 2.0 model, characterized by the rise of social networks and the control of Gafam (Google, Apple, Facebook - now Meta, Amazon, Microsoft): basically, why let Meta get richer when it's the user who produces, likes and interacts? Jessica Soueidi, a self-employed artist, joined Web 3 to access buyers and the public directly. It worked so well that she created the community Art from Future, «to share her accumulated knowledge with other women artists. If she sometimes suffers «mansplaining, unjustified suspicions of incompetence», she is nevertheless convinced, like Marie Robin, that everything is to be built in Web 3. That's why they both want to convince more women to join: to create a world that is as diverse as it is offline.



Beware, like the stock market prices, those of crypto-currencies can make your happiness as well as your misfortune. *gmas3r / Getty Images*

Your debut in crypto will not be cryptic

Investing in **cryptocurrencies** has become commonplace. Our guide gives all the keys to start with **caution**

Lisa Debernard

With a batch of new opportunities almost daily, the cryptocurrency market can be very attractive, but to invest safely it is necessary to be vigilant. «Crypto is a new universe that is scary and that's normal, because in my opinion we are

living the next economic revolution,» confides Caroline Jurado, crypto influencer and author of a popular newsletter on the subject.

1. GET INFORMATION. Newsletters, books, documentaries, podcasts or Youtube channels, choices are wide open and allow to build an informed opinion. The little trick to evaluate your knowledge? For Claire Balva, director of blockchain & crypto at KPMG «you have to explain it to someone who knows nothing about it. If you are unable to do so, then you have not

understood anything».

2. DEFINE YOUR INVESTOR PROFILE. According to Caroline Jurado, the ideal is to make a first investment, the one that allows you to define what type of investor you are. «Did I wake up at night thinking about my money? Did I compulsively follow the price of cryptos?» If you are stressed, choose a stable crypto, if you are relaxed, you can consider a longer term plan.

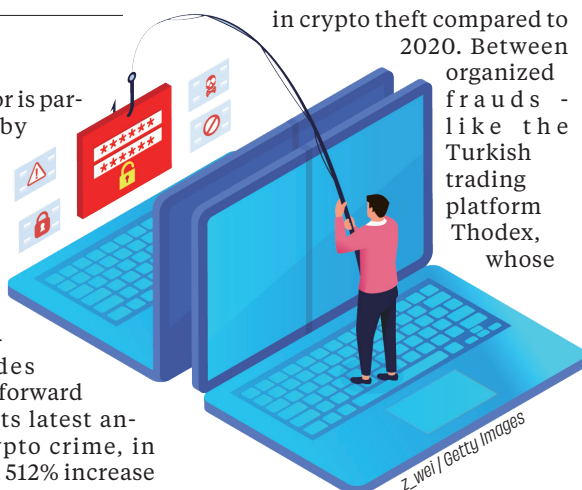
3. THE INVESTMENT PLAN. What is my time horizon? What is my starting capital? How often should I invest? An investment plan is essential in order to not give in to panic in the face of the volatility of cryptocurrencies «which is the very essence of the model,» as Giulia Mazzolini, director of Bitpanda, explains.

4. CHOOSE YOUR PLATFORM. You can start via some online banks or centralized platforms like Coinbase.

Against pirates, it's best not to scuttle

L.D

«The crypto sector is particularly affected by cybercriminal activities. As soon as the price rises, we see a resurgence of attacks,» explains Benoît Grunemwald, cybersecurity expert. This observation coincides with the figures put forward by Chainalysis in its latest annual report on crypto crime, in which it estimates a 512% increase



in crypto theft compared to 2020. Between organized frauds - like the Turkish trading platform Thodex, whose

founder decided to set sail last April with \$2 billion - and more traditional scams, the key word remains caution. «The flaw in technology is the human being. Not the technology,» says Florence Sedès, a computer science researcher. Nothing is irreparable, however, since «you are your own greatest bulwark against threats thanks to your vigilance and good computer hygiene,» says Benoît Grunemwald, who recommends regularly updating your information system, installing a security suite, and using strong, multi-factor authentication.

Password, instructions for use

«A good password is not a password, according to cyber security expert Benoît Grunemwald. What's secure is a passphrase.» On the other hand, forget the line from a book that could be found through a dictionary attack. Instead, use a phrase of your own imagination, without spaces, sprinkled with numbers and special characters and, above all, a passphrase for every account.

«To find out what crypto investing is all about, it's quite sufficient and secure,» in the opinion of Caroline Jadot. The change of platform will follow the evolution of the needs..

5. SECURE. In crypto, there are three levels of security. The first, low, your money remains on an investment platform, at the risk of seeing it disappear through hacking. Then medium, using a decentralized online wallet. Finally, strong, by transferring your funds to a physical technological wallet, protected by a PIN code and a backup, composed of twenty-four words in English called a recovery phrase. The equivalent of a PUK code on a smartphone.

6. KNOW THE TAX SYSTEM. Since 2020 a dedicated box for digital assets has been added to tax returns. When the capital gains from sales of crypto-assets converted into fiat currency exceeds an amount of €305, you are eligible to pay tax. In the case of a digital asset sale, the €305 yearly threshold also applies and exposes you to taxation at an overall rate of 30%. Do you feel ready to get started? The golden rule that everyone agrees on is to never invest more than you are willing to lose.

«It's a new and scary universe, and it's normal.» Caroline Jurado, Les cryptos de Caro

hacking. Then medium, using a decentralized online wallet. Finally, strong, by transferring your funds to a physical technological wallet, protected by a PIN code and a backup, composed of twenty-four words in English called a recovery phrase. The equivalent of a PUK code on a smartphone.



What's a wallet? A wallet allows the storage and use of crypto-assets, much like a physical wallet holds cash. There are 2 types, the hot and the cold wallet.

Both require a public key (the equivalent of a postal address) and a private key (the equivalent of your house key), which allows access to the assets.

A hot wallet (virtual) is a crypto wallet that can be connected to the Internet in any way.

A cold wallet, on the other hand, is disconnected.

Sébastien Badault vice president of Ledger

« Creators will lead, users will follow »

interviewed by **Laurent Bainier**

Return of ownership, better revenue sharing, change in business model... The vice president of French giant Ledger, a leader in securing cryptoassets, draws the future of Web 3.

The metaverse is not yet massively adopted. Why is it so important now?

Ledger has an important role to play in expanding the Web 3 user community in general. This expansion will be gradual. I believe the content creators will lead the way. When they pivot, the users will follow.

Why would they leave the platforms that gave them their audience?

Mainly because the way business models have been developed in Web 2.0 are not virtuous. All content creators – all of us who post, share, etc. – don't earn anything for what we produce. There is a real inequality at the base

A key partner

Ledger was the first partner of the 20 Mint project, which the brand joined even before the sale of NFTs by hiding inside the visuals ten Nano S plus. Buyers who discovered the virtual object could claim a real version.

of these models.

Would Web 3 be the end of these digital giants?

I don't think there will be a disappearance of Web 2 in favor of Web 3. Creating your community, currently, is mainly done through platforms like Twitter or Instagram. But I'm sure there will be a shift from one model to the other. After the content creators leave, the decentralization will be about how audiences are rewarded. By rewarding through tokens those who talk about us, engage around our art, we create a virtuous circle and a sounding board that will eventually allow us to do without Web 2.0 platforms.

And what will you do in all this?

Everyone will own more and more media (music, movies, sports-related items, etc.). The need to secure them will be paramount. Ledger was created by people who wanted to protect their bitcoins, then their other cryptocurrencies. Today, we secure 20% of the world's crypto-currencies, but when you look at some of the NFT collections, the percentage of tokens deposited on our products is much higher because people have an even more intense relationship with their NFTs.

After years of praising access, subscription and rental, it's the great return of ownership...

The real revolution is the one of



Sébastien Badault is the new vice president in charge of metaverse at Ledger. *Eric Fefarberg / AFP*

possession, yes. That doesn't mean that the logic of Airbnb or Uber is bad. But having control over what you do in the digital world is essential. Until the advent of crypto and Web 3, the only digital thing you could own was a domain name. If I stop my Spotify subscription tomorrow, I lose my history, my playlists, etc. because everything is centralized and I'm in a rental logic. Tomorrow, we will have a mix between these two logics.

Tomorrow? Why not today?

Many people reject the tech hegemony of the American giants but they will only take the plunge when they are offered a Web 3 alternative that is at least as convenient. The big issue is ease of access. If you have tokens everywhere, digital duplicates of everything you buy, you need a visually pleasing and easy to access platform to manage it all. The first challenge lies with the developer community to create these very simple and intuitive interfaces..



One of the 20 Mint project machines.

Does Web 3 really exist?

Lisa Debernard

➔ Revolutionary for some, nebulous for others, this buzz word is the object of mockery even among the greatest tech-enthusiasts, like Elon Musk who tweeted in December: «Has anyone seen Web 3? No way to find it.»

A tweet that makes you smile but heavy with meaning, since in fact, «the architecture of Web 3 is not invented and everything remains to be done,» says Florence Sedès, a researcher at the Institute for Research in Computer Science in Toulouse. In its broadest sense, Web 3 is seen as

the next version of the web: decentralized and giving back control to users thanks to the blockchain. Also, any project related to this technology can now be stamped Web 3 and some are already well advanced, such as NFT or crypto exchange platforms. The problem that remains to see it emerge as a global solution remains the scalability or large-scale application of the blockchain. A technology, «which is currently only thought to register small transactions,» according to Yosra Jarraa, CEO of Astra-chain. So it is no longer a question of whether Web3 exists, but rather whether it will replace Web 2.0 or is an emerging offshoot.



What is a stablecoin?

A cryptocurrency whose value reflects that of a tangible asset. Often representative of a Fiat currency (euro, dollar), the price of a stablecoin can also be set to commodities such as gold, real estate or hay for example. For a stablecoin to be considered so, the company issuing the token must have tangible assets to «insure» its value. There is often less volatility than in other types of investments, hence the «stable» connotation of the name.

Metaverse Between virtual and reality, there's a world of difference

01 WELCOME TO THE METAVERSE

It's the buzzword of the year. Contraction of meta and universe, the metaverse designates an immersive, shared, and persistent fictional world. A community of users can interact via avatars. These new digital spaces are announced as the next Internet revolution, but the concept first appeared in American science fiction literature in the 1960s. The multiplayer online game Second Life, created in 2003, is considered one of the first mass-market applications to use this concept. The latter is getting a new pulse thanks to Facebook, which has announced that it wants to invest massively in developing its own universe, Horizon Worlds. To affirm this transition, the American giant renamed itself Meta in October 2021. If the uses are restricted today, the development perspectives seem unlimited.

02 Is there more than one metaverse ?

— « There is a metaverse made up of virtual worlds – just as there is an Internet and websites », says Alexandre Bouchet, director of Clarté, a technology resource center specializing in virtual reality (VR). To travel between worlds, « the challenge will be interoperability », agrees Guillaume Moreau, a researcher in virtual reality at IMT Atlantique. To date, there are no development standards and therefore no standardization between metaverse.



03 Gaming, the metaverse DNA

For the moment, the main use is video games, via avatars with human appearances. « This is the beginning: everything remains to be exploited in the metaverse. With time, there will be imaginary characters, mythological worlds, new planets... », says Adrien Magdelaine, co-founder of Dogami, a game populated with virtual puppies to raise. *Crédit : Sensvector / Getty Images*

... tomorrow, the suit of the future

— Immersion into the metaverse is limited these days: the main sense solicited is the vision. Wearing virtual reality helmets is still cumbersome, « there is still a physical discomfort », says Kris Penseyres. « In a few years, the metaverse will be sensory with the evolution of equipment. The immersion will be total. Initially, we can expect the development of gloves, then suits, to awaken the sensation of touch. Eventually, with the miniaturization of chips, we can also imagine the implantation of chips in the body to directly stimulate the nerves and recreate the sensation of adrenaline, like Elon Musk's Neuralink project, » he continues.



04

JUST A REGULAR DAY

« Everything can become virtual. There will be no limit to the metaverse : work, training... Even sex », says Kris Penseyres, co-founder of Dogami. « Just look at the technological leaps of recent years: our grandparents would never have thought that dating could be done on an app. » *Crédit : ChakisAtelier / Getty Images*

05 Today, the virtual reality headsets...

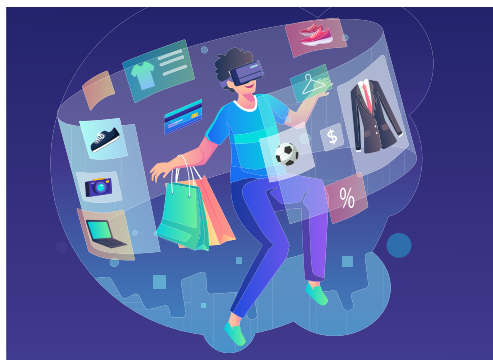
To democratize the metaverse, « we can expect, in three to five years, new generation headsets – more powerful, more comfortable and less expensive », says Alexandre Bouchet. The next step, within ten years : « Augmented reality glasses, to mix real and virtual ». However, the miniaturization of image projection systems and the reduction of energy consumption will have to be tackled.

07

The real limit to immersion? Our bodies!

Flying, teleporting, swimming... In the metaverse, no physical limits. But with or without a chip in the body, « the user will remain physically in the real world! So if he runs in a real space that is smaller than the virtual one he is in, he will quickly hit the walls », Guillaume Moreau explains. Problematic.

08



MONEY, MONEY, MONEY

Business models are being designed. There are three options to date: « A one-time payment at the entrance, in-app purchases as you use the service, or targeted advertising, » says Guillaume Moreau. This option will raise, as for current social networks, the question of personal data ownership. *Crédit : agny_illustration / Getty*

09

AND OUR PERSONAL DATA BECAME VERY PERSONAL

Users will create new, very personal data. The traces are deeper and more unconscious than those left on the Web », explains Alexandre Bouchet. Sensors analyze emotions through movement, heart rate or pupil dilation.»

10

New world, new rules

« Within five years, the adoption of the metaverse can be massive thanks to the conversion of social network users », says Adrien Magdelaine. Cyber-stalking, hate speech... Platforms have had their share of challenges, which are already being repeated in the metaverse. Several cases have been reported of verbal or even physical aggression via avatars. « The user physically embodies the avatar, so such abuses can cause real trauma », warns Alexandre Bouchet. If Meta had not anticipated the danger, « they have since launched a protection mechanism with the creation of a virtual 'safe space' imposing a limit of one meter between his avatar and that of others. » As for insults, « the challenge is to apply the same rules in the virtual world as in the real world. This will raise the question of anonymity in the metaverse. »

Discordially

This first issue will be followed by others. They too will be piloted by the owners of NFT typewriters, the «Mecas», gathered on the project's Discord server. On this messaging service, hundreds of members have already tried their hand at participatory writing, creating the glossary that is scattered throughout the magazine, voting for the most interesting projects of the moment, debating the present and the future of the project. If you want to join the community, you will find an invitation on the Discord at the top of 20mint.xyz. Some of the discussions are open to the general public. The rest is reserved for Mecas..

Top 20

We asked the community to come up with a top 20 list of people we should include in this issue. We only interviewed a few. But here is the complete ranking (mission accomplished, right?): 1. Hasheur ; 2. Xavier Niel ; 3. Mickael Canu ; 4. Emmanuel Macron ; 5. Crypto Matrix ; 6. Grégory Raymond (bravo pour The Big Whale) ; 7. Alexandre Stachtchenko ; 8. Sam JDC ; 9. Raphaël Bloch ; 10. Marc Zeller ; 11. Pierre Person ; 12. Sébastien Gouspillou ; 13. Julien Bouteloup ; 14. Eric Lachevêque ; 15. Romain Lanéry ; 16. Freeze Corleone ; 17. Manuel Ferrara ; 18. Sébastien Borget ; 19. Claire Balva ; 20. Cryptofarmer.

Thanks you Mecas

We can't mention all of you but we know what we owe you. Gauthier, our moderator, has selected the 20 most active contributors of our Discord. A big thank you to them! OxAwak ;

BenjyBorg ; SebM ; Shira ; Flubby | MetaBBQ ; Daoud ; notiles ; gege83var ; Slumar ; LeVraiFlawks ; [Eboos] Inferno ; Mafiou ; demqin ; Youyou Julot ; Flo73 RIP300WORDS ; Léonidas (For the others, see you in the next issue!)



Wallis and the Typewriters

It is in Bayonne, the city where she settled down, just one year ago, at the end of the last lockdown that Wallis Desport crossed the road of Capsule Corp. Labs, the partners of this magazine. «I knew they were looking for artists for the 20 Mint project, so I applied. Her virtual typewriter, which borrows from vintage with an elegant brass keyboard, caught their attention. She was selected to create the 999 NFTs imagined to launch the magazine you are holding in your hands. In a month and a half, the woman who began her career in fashion as a textile designer immersed herself in the world of NFTs and discovered its workings. She invests in an iPad, actively learns about the process and becomes familiar with generative art. «From my first model, I drew about 20 layers of machine bodies, keyboards, papers and quotes. I then entered them into a software program that randomly generated 999 variations by layering the different layers.»

A shot of DopamineApp

If 20 Mint has attracted NFT buyers from all over the world, it's because of them. The partly French team behind the DopamineApp application spotted our project and shared it with their community. Dopamine is a decentralized news aggregator aimed at a very large audience so that everyone can access the crypto world. The «news» tab lists freshly published articles and content from referenced youtubers. The application has already been downloaded more than 3 million times.

Machines for resale. If you want to keep a souvenir of this first crazy issue, typewriter NFT are available for resale at the following address : opensea.io/collection/20-mint-typewriter

Twitter. To keep you informed about the 20 Mint project and the next issue, we have created a dedicated Twitter account : [@20MintFR](https://twitter.com/20MintFR)

20mint.xyz. This is the address of the site where each holder of our NFT will soon be able to discover exclusive content, including this English version of the magazine.

What's next? After a few days to digest the release of this issue, we will tackle the constitution of a DAO, a decentralized autonomous organization that will drive the rest of the adventure. A lot of work ahead...



Photo: Wallis Desport

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