# DAMN°

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Winter 2022

## Organic

## Matters

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**The goal of a blockchain is to allow digital information to be recorded and distributed but not edited. From a design perspective this type of database can enhance trust, efficiency, and speed. In the financial world it's already proven to be a real game changer, but equally, it has the potential to transform supply chain management by enabling faster and more cost-efficient delivery of products, along with better traceability and coordination between partners. This comes down to the key difference between a typical database and a blockchain. Blockchains collect sets of information together in groups or blocks – these have certain storage capacities that, once filled, are closed and linked to the previously filled block. The resulting chain of data has an irreversible time line. Trust is engendered and security is guaranteed, as new blocks are always stored linearly and chronologically.**

Some call it disruptive. Some call it accelerating. One thing for sure is that most find it confusing. Blockchain technology is definitively *the* hot topic that creatives are beginning to pursue a bit more feverishly. But where's the burn? Most people find any explanation of blockchain complicated, aligning it to bitcoin or cryptocurrency. In point of fact, bitcoin is just one example of what could not have been created without blockchain technology sustaining it.

Blockchain is for all intents and purposes a sophisticated ledger system (a recorded series of transactions) shared between a number of different people. No one person has actual control of the data, making it very difficult for anyone to modify its history or even to add to the transaction without the approval of the other people in the blockchain.

Once there's a real problem to solve, such as the implementation of alternative digital currencies mentioned earlier (there are currently over 1600 cryptocurrencies on the market), blockchain provides a safer and more reliable option than cold hard cash or brick & mortar banks. Blockchain serves as a definitive platform of exchange (and not just for alternatives to traditional banking) because the data on blockchain is secure, and more importantly, unfalsifiable.

For supply chain management, where the tracking of goods and services is quintessential to commercial success, blockchain acts like a distributed ledger which can exist in either a private or public network. With increasing attention paid to sustainable development or ethically sourced practices, businesses and industry can track both goods and services, while revealing the provenance of every single action within the supply chain.

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The exponential and disruptive growth comes from the convergence of public and private blockchains into a digital landscape where firms, customers and suppliers can join forces in a secure, assessable and virtually verifiable way. These circumstances have never been as important as today, when consumers demand singular transparency from industry. Complexities arise in the application of blockchain methods and the path to make value (or profit) from any such implementation.

Richard Bradley, in Deloitte's broadcast series 'Technology Decoded' on World Radio Switzerland, stated that according to a global blockchain survey by Deloitte, three-quarters of respondents said that there is a credible case for blockchain, but only twenty percent are actually doing anything about it.

Again, once there is a real-life problem to tackle, blockchain could be employed to solve it. One of the most important sectors in dire need of answers about the provenance of products and a more transparent take on carbon emissions, is the agri-food sector. Most recently, both creators and cultural platforms are taking this to heart on a local and global scale.

Because there is nothing like food to unite people and at the same time marginalise a great many more. In 2014, the global food industry had yearly revenues of 2.4 trillion U.S. dollars and by 2024 that will have grown to 4.2 trillion. Due to the exponential evolution and expansion of computational power, blockchain is one tool that facilitates growth by merging the digital and physical realms.

The artistic world is entranced by the foodstuffs that we eat, and tech is quickly catching up as a PAR layer

Lumberjacks posing in front of the 1000-year-old sequoia tree 'Mark Twain', California, 1892
Exhibition: 'Farmer designers: an art of living' at madd bordeaux; photo © Charles C. Curtis – Library of London


Real Facts: installation designed by ECAL Bachelor's students under the supervision of Erwan Bouroullec and Adrien Rovero Exhibition: 'Farmer designers: an art of living' at madd-bordeaux; photo © ECAL / Jimmy Rachez

for creatives to investigate and then combine the two. A deep dive into design through the lens of transport, agriculture, forestry, land management, energy production and health services is a way for creatives to understand and contextualise the world as it is, and also to imagine the world as it might become.

One such initiative is from the coder and artist, Xiaowei R. Wang, who takes her research to small farms and villages across China and the U.S. where she unveils how rural areas have become thoughtfully innovative strongholds of entrepreneurship. Take the free-range chicken farmer in China who uses biometrics and blockchain to track the movement of his livestock and communities cooperating with blacksmiths to design new farming equipment. This type of transformation doesn't seek to scale to millions of users, Wang says; instead, its aim is to regenerate soil, maintain ecological balance and foster community bonds across generations.

On the industry side, Austral Fisheries, one of Australia's largest integrated commercial fishing companies with products distributed to some of the planet's finest restaurants, introduced blockchain technology in 2019. After the fish are caught and gutted, they are immediately tagged. Consider that one-third of sea life populations are over-fished, which means verifying where and how each one has been caught is integral to protecting global biodiversity. Blockchain provides the trackability from catch to plate, providing valuable and secure information in real time throughout the supply chain and leaving little room for fraud.

Even without blockchain there are other incredibly important innovations using other types of initiatives which are being integrated into ventures, that are also worth mentioning.

Dutch-born, Melbourne-based eco-innovator Joost Bakker has for over two decades worked on a plethora of concepts and practices that envelop sustainable design practices. His latest vision, *futurefoodsystem,* is an example of the potential to create positive impact by changing the way humans build, live and eat. The project is a self sustaining, zero waste, productive house that demonstrates the potential of the home to provide shelter, produce food and generate energy. At the heart of the concept is a system that mimics nature by growing, nourishing and fertilising. The futurefoodsystem up-cycles what is regarded as 'waste' to power the house and grow nutrient-dense produce. Every single person generates abundant nutrient sources that just need to be harvested. The futurefoodsystem plans to cultivate over 250 different species of plants, fungi, insects, snails, fish, freshwater mussels, and crustaceans, and includes two resident chickens.

## This is an invocation and a prayer for a different kind of world.

Another example comes from *How will we live together?,* which is the theme of the 2021 Venice Biennale architecture exhibition. In response, Superflux studio created a highly nuanced response to climate change with the installation 'Refuge for Resurgence', a multispecies dining experience with animals, birds, plants and fungi. All forms of life come together to celebrate their ecological interdependence in a symbolic space where all species can prosper with resilience, adaptation, and hope.

Jon Ardern, co-founder of Superflux explains: "We're drawing on ideas of folklore, mythology, the transformative potential of ritual and ceremony. We want to open up poetic aspects of other worlds that might feel enigmatic – or even magical. This is an invocation and a prayer for a different kind of world."

As for cultural institutions, the *Musée des Arts décoratifs et du Design* in Bordeaux, recently showcased a thoughtful and comprehensive exhibition entitled, 'Farmer designers, agriculture on the move', curated by the museum's director, Constance Rubini, which explores new reciprocities devoted to farming design with a central focus on the functionality of soil and the ecosystem that it protects. The museum also invited 2nd year students from ECAL/*Ecole cantonale d'art de Lausanne* to present 'Real Facts', an exhibition created under the backing of their tutors, the designers Adrien Rovero and Erwan Bouroullec, which gives form to a set of neophyte points of view about the current agricultural landscape.

The narrative journey of discourse on climate change is not a very satisfying one, sometimes overly cautionary or even alarmist. In spite of this situation, frameworks put in play by tech and design should at the very least be welcomed for their optimism. Our relationship to nature and to each other requires a reconciliation of attitudes, habits and an understanding of unjust and harsh social systems. To reclaim an environmentally conscious approach through technologies can fill the gap between individual choice and collective responsibility, while design makes a functionally aesthetic bridge, raising our consciousness to the level of art.

Returning to Xiaowei Wang, she writes in her book Blockchain Chicken Farm (2020) on a visit to Tianjin, "I see how the landscape of urban, contemporary China can be difficult to square with its past. This tension is what so many

Western writers and media draw on: the seduction of contradiction."

Even a survey (that I hesitated to quote) by Deloitte, one of the Big Four accounting firms, could be considered circumspect when one reads how some of these firms fail at dealing with corruption or malpractice. Their most powerful clients are in reality paying to keep a ledger that maintains the status quo. Look at fiascos like Wirecard in Germany – a series of accounting scandals that prove just how necessary more transparency is in big sectors: big money, big food, big luxury, big travel, big waste. So far, the answers have been way too small.

We are all centred in one place. We are biased. The probability of narrow self-interest is true (and maybe not all bad). Perhaps the more equitable (and honourable) thing to do is strive to understand what is only partly true and refuse what is so organically false. While calculating the interminable crevice between your shopping cart and your plate, let us all become remarkable through our capacity to sow seeds of indispensable hopefulness in a planet crying with shame. <

Farmer designers: an art of living
Musée des Arts décoratifs et du Design
madd-bordeaux.fr
until 17 January 2022

Exhibition view:
Farmer designers: an art of living
madd-bordeaux
↓
A selection of old tools.
Photo: Cultural season *Ressources* / Bordeaux 2021 © Rodolphe Esche
→
Austral Northern Prawn Fishery Vessel; photo: Michael Pride & Austral Fisheries
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A singular agriculture – market gardening, Malabo (Bioko island), Equatorial Guinea, 2016
Photo: Jan Ziegler
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Erwan Bouroullec, Impossible N1, dye-sublimation printed fabric laminated on aluminium, 2021
Photo: Erwan Bouroullec



*xiaoweiwang.com*

*australfisheries.com.au*

*futurefoodsystem.com*

*madd-bordeaux.fr*