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Monax Legal Engineering

At its simplest, legal engineering is the practice of writing smart contracts (https://monax.io/explainers/smart_contracts/) that automate legally-enforceable rights and obligations.

Usually, legal rights and obligations are set out in "dumb" paper documents which must be read and interpreted, and acted on, by people. This takes a lot of time and effort. In today's increasingly data-driven world, it makes much more sense for contractual obligations to be represented in code and processed at least in part by computers - improving adherence, easing compliance, and automating performance.

The increasing need for automated data-driven solutions across multiple business verticals means an opportunity to create ecosystem applications: programs, platforms and solutions that enable businesses, governments, organizations and individuals to automate their network interactions via smart contract rules. Drafting the rules of commercial interactions is traditionally the job of a lawyer. In a data-driven ecosystem, it's the job of legal engineers.

Blockchains are legal tech

The advent of distributed ledger technology and blockchains has enabled writing smart contracts that can execute the terms of a contract, make decisions, store information, and interact with other smart contracts. For a more in-depth explanation of blockchains and smart contracts, please see our blockchains (https://monax.io/explainers/blockchains/) and smart contract (https://monax.io/explainers/smart_contracts/) explainers.

At Monax, "legal engineering" means writing smart contracts that leverage the capabilities of ecosystem application technology to automate complex legal transactions, resulting in greater efficiency and lower transaction costs. Use cases we have seen pursued include automating the gathering of evidence, management of money and property, automation of property registerss, and automation of audit for trade and supply chain finance. Indeed almost any financial standard can be modelled in smart contracts (SWIFT, for example, built several prototypes (https://www.swift.com/insights/press-releases/swift-examines-application-of-financial-business-standards-to-distributed-ledger-technology-and-smart-contracts), including a bond and ISO 20022 messaging, with our software).

Some people call this "fintech." We think these use cases actually show that smart contracts and the blockchains that run them are *legal tech.* Smart contracts allow breakthrough use cases like true delivery-versus-payment in securities settlement and sorely needed trade finance processing like reliable invoice tracking and letters of credit. To build these and other complex use cases requires engineers who understand the formal requirements of transactional law which governs these types of transactions. Hence, legal engineering.

Law and code, evolving together

Smart contract solutions with pre-existing legal contexts, like financial, insurance and commercial models, must comply fully with existing laws. This is not a principle all blockchain (particularly cryptocurrency) startups are necessarily committed to. For the legal engineers at Monax, however, using blockchains in a legally correct way is foundational.

Legal systems provide many tools for achieving people's commercial intention with certainty, for example, contract law.

Today the law is evolving at global scale, in code. Interoperable systems, rather than dark data pools, are the commercial information models of the future. Legal systems do not evolve at the same pace as technology; to ensure that your encoded agreements will be recognized by courts today, we recommend Dual Integration. For more on Dual Integration, see our brief explainer (https://monax.io/explainers/dual_integration/).

Enabling humans to make decisions and commitments today

With careful prospective legal engineering, entities can create smart contract relationships in code that self-execute contractual intent while functioning within broader commercial realities.

Legal engineering smart contracts means configuring reliable future events in code, enabling humans to make decisions and commitments today. In order to serve industrial needs, smart contracts must be built by a team with deep understanding of coding systems and legal systems, as well as the vision to put it together. Monax legal engineers are experienced lawyers and developers with the technical know-how to bring smart contract use cases to life.

All Explainers (https://monax.io/explainers/)