Providing a Legal Framework for Blockchain Activities And a Blockchain Framework for Legal Activities

Oliver R. Goodenough Vermont Law School & CodeX Center for Legal Informatics Blockchain in the Courts: First Annual Dennis Karjala Memorial Workshop November 3, 2018 Phoenix, Arizona

Talk Introduction

- How does the law provide structure and regulation on blockchain/distributed ledger activities?
 - Can enable as well as control
 - Can seek to apply/adapt/contort existing models Carla point uncertainty
 - Can seek to develop targeted/certain solutions for legislation & regulation
 - Law already is computation just word based: See Flood & Goodenough
- How does blockchain/distributed ledger inform and change how the law is conceived and applied?
 - New possibilities for doctrine
 - New possibilities for process
- Personal approach: find the holes in the interface of law and ledger and help to fill them, hopefully intelligently; Vermont Bias

Question 1: How will the law deal with a new activity?

- Common law: bend existing concepts to meet the new approach
 - Although occasionally a new framework
- Legislative and regulatory: can also create new categories and results
- Getting it right matters: Paul Romer insight:

"Economic growth is driven by the coevolution of two sets of ideas, technology and rules. Governments can increase the rate of growth – in ways that benefit all citizens – by creating systems of rules that are both encouraging of and responsive to innovation; the various goals do not always line up."

Legal Status of a Blockchain Network

- What is the legal status of a distributed ledger community?
 - Chain itself? Supporting organizations?
 - "Decentralized Autonomous Organization" or DAO
 - Isn't on-chain governance enough?
 - Blockchain utopianism and libertarianism
 - Nice idea, but the law may classify it in existing formats
 - When the Sheriff shows up with a binding order, on-chain independence gets tricky
 - Suits do happen Winklevoss twins vs. Shrem
- Existing Law Possibilities
 - Partnership? Possibly a disaster
 - Third Party Liability, Fiduciary Duties, Changes, Tax
 - Trust? Carla Reyes
- Vermont Legislative Solution: The Blockchain LLC
 - Explicitly aimed at solving problems of liability, governance, duties, tax

Other Enabling Concerns

- What is the admissibility status of blockchain data in court?
 - More later, but a Vermont approach here as well
- What is the legal status of Tokens?
 - Analogies to instruments, including stock, checks, bills of lading etc.
 - Don't want the law to put them into old buckets: UCC has specific requirements
 - Wyoming a starting point, but need better, widely adopted legal structure: UCC "Article Blockchain"?
- What is the legal status of smart contracts?
 - UETA does a lot of the the work, but needs more
 - "Ricardian" idea
 - Repository initiatives: Specific target? Use more general? BBR suggestion

Regulatory Challenges: Apply Existing Paradigms Here?

- Securities Regulation in the US
 - Crypto/ICO Concerns: Is the token/coin a security?
 - If So, US Regulatory structure
 - Howey Test
 - Issuance: ICO's and the 1933 Act
 - Trying to comply or ignoring? Significant risks of penalty
 - Trading: Is it a security or a commodity?
 - Involving a broker/dealer can assist
 - State by State Concerns as Well
- Money Transfer
 - KYC/Money Laundering

New Approaches

- Here, too we need new structures
- Government is beginning to recognize that
 - US Treasury White Paper
 - SEC Strategic Hub for Innovation and Financial Technology (FinHub)
 - Just announced
 - Not quite a sandbox: "Provide a portal for industry and the public to engage directly with SEC staff on innovative ideas and technological developments"
 - State Initiatives
 - Arizona Sandbox credit here
 - Wyoming, Vermont
 - International UK Sandbox, Singapore, Malta, Bermuda, etc.

What It May Look Like

- Possible Next Steps in Traditional Regulatory Relaxation
 - Safe harbors
 - Offerings
 - Trading/Usage
 - Small purchaser exceptions
 - Nimble disclosure requirements
 - Beyond Crypto and Coins: Security, Equity and Utility Tokens
- But Blockchain and its relatives will also drive us to new formulations

Question Two: How will a new activity change the law? Some of the possibilities

- Solving the openness/privacy challenge
 - Encryption, distribution
 - Bringing the algorithm to the data
 - Gibberish open to everyone
- Property
 - Will ease and democratization of recordation lead to new bundling of rights and duties? Does the "numerus clausus" melt?
- Government registries more generally
 - Secretary of State network?
 - Notary substitute for authentication?

Possibilities Continued

- Personal information
 - Ability to have personal control?
 - Vermont PIPC
- Organizations
 - What will a DAO look like when we do recognize it?
 - Turing Machine erase and rewrite: able to learn & change
- Funding/Securities/Contracts
 - Computable Contracts Flood & Goodenough
 - "Smart securities" self tracking, administering
 - Legal Specification Protocol: Stanford White Paper

Courts Themselves

- What does a proceeding look like if conducted remotely and utilizing a distributed ledger approach?
 - What needs to be in person?
 - ODR already widespread in civil disputes
 - Federal Bankruptcy Courts: High Use of PDFs and other data filing
- What blockchain can add: information security
 - Consider Italian Initiative
 - Are we concerned about hacking of processes?
 - Interested parties?
 - The supposedly neutral magistrate?
 - Interest in Russia for a reason

Wrap Up

- Law and the new technology applications will benefit from a deliberative approach to creating rules on blockchain/distributed ledger
 - Reminder: needed to enable and to regulate
- We should be active in this: Propose law & seek adoption
 - Harvard/MIT/Stanford
 - My Stanford conference story
 - Others in this room
 - Some thoughts on how to
- More than enough to keep us busy for the foreseeable future