The Technology and Law CLE presentation will cover three topical technology issues in the law: (1) Chatbots, (2) Bias in algorithms, and (2) digitals currency and blockchain. Chatbots are becoming more prevalent in the retail industry and are used in many customer-facing websites. But there are legal issues around protecting customer data (such as GDPR and state privacy laws), advertising laws, and even IP infringement. In addition, with the rise tech companies using machine learning, artificial intelligence, and data-focused programs, there is now a concern of bias in algorithms and its legal ramifications. Finally, digital currencies such as bitcoin are everywhere, but do the issuance of these new currencies conflict with traditional securities law? What legal issues are there with the underlying technology behind bitcoin: blockchain? The presentation will provide an overview of these three prevalent topics, the legal issues behind them, and how it affects the greater industry today.
Developers, businesses, and individuals increasingly are using initial coin offerings, also called ICOs or token sales, to raise capital. These activities may provide fair and lawful investment opportunities. However, new technologies and financial products, such as those associated with ICOs, can be used improperly to entice investors with the promise of high returns in a new investment space. The SEC's Office of Investor Education and Advocacy is issuing this Investor Bulletin to make investors aware of potential risks of participating in ICOs.

Background – Initial Coin Offerings

Virtual coins or tokens are created and disseminated using distributed ledger or blockchain technology. Recently promoters have been selling virtual coins or tokens in ICOs. Purchasers may use fiat currency (e.g., U.S. dollars) or virtual currencies to buy these virtual coins or tokens. Promoters may tell purchasers that the capital raised from the sales will be used to fund development of a digital platform, software, or other projects and that the virtual tokens or coins may be used to access the platform, use the software, or otherwise participate in the project. Some promoters and initial sellers may lead buyers of the virtual coins or tokens to expect a return on their investment or to participate in a share of the returns provided by the project. After they are issued, the virtual coins or tokens may be resold to others in a secondary market on virtual currency exchanges or other platforms.

Depending on the facts and circumstances of each individual ICO, the virtual coins or tokens that are offered or sold may be securities. If they are securities, the offer and sale of these virtual coins or tokens in an ICO are subject to the federal securities laws.

On July 25, 2017, the SEC issued a Report of Investigation under Section 21(a) of the Securities Exchange Act of 1934 describing an SEC investigation of The DAO, a virtual organization, and its use of distributed ledger or blockchain technology to facilitate the offer and sale of DAO Tokens to raise capital. The Commission applied existing U.S. federal securities laws to this new paradigm, determining that DAO Tokens were securities. The Commission stressed that those who offer and sell securities in the U.S. are required to comply with federal securities laws, regardless of whether those securities are purchased with virtual currencies or distributed with blockchain technology.

To facilitate understanding of this new and complex area, here are some basic concepts that you should understand before investing in virtual coins or tokens:

What is a blockchain?

A blockchain is an electronic distributed ledger or list of entries – much like a stock ledger – that is maintained by various participants in a network of computers. Blockchains use cryptography to process and verify transactions.
on the ledger, providing comfort to users and potential users of the blockchain that entries are secure. Some examples of blockchain are the Bitcoin and Ethereum blockchains, which are used to create and track transactions in bitcoin and ether, respectively.

**What is a virtual currency or virtual token or coin?**

A virtual currency is a digital representation of value that can be digitally traded and functions as a medium of exchange, unit of account, or store of value. Virtual tokens or coins may represent other rights as well. Accordingly, in certain cases, the tokens or coins will be securities and may not be lawfully sold without registration with the SEC or pursuant to an exemption from registration.

**What is a virtual currency exchange?**

A virtual currency exchange is a person or entity that exchanges virtual currency for fiat currency, funds, or other forms of virtual currency. Virtual currency exchanges typically charge fees for these services. Secondary market trading of virtual tokens or coins may also occur on an exchange. These exchanges may not be registered securities exchanges or alternative trading systems regulated under the federal securities laws. Accordingly, in purchasing and selling virtual coins and tokens, you may not have the same protections that would apply in the case of stocks listed on an exchange.

**Who issues virtual tokens or coins?**

Virtual tokens or coins may be issued by a virtual organization or other capital raising entity. A virtual organization is an organization embodied in computer code and executed on a distributed ledger or blockchain. The code, often called a “smart contract,” serves to automate certain functions of the organization, which may include the issuance of certain virtual coins or tokens. The DAO, which was a decentralized autonomous organization, is an example of a virtual organization.

**Some Key Points to Consider When Determining Whether to Participate in an ICO**

If you are thinking about participating in an ICO, here are some things you should consider.

- Depending on the facts and circumstances, the offering may involve the offer and sale of securities. If that is the case, the offer and sale of virtual coins or tokens must itself be registered with the SEC, or be performed pursuant to an exemption from registration. Before investing in an ICO, ask whether the virtual tokens or coins are securities and whether the persons selling them registered the offering with the SEC. A few things to keep in mind about registration:
  - If an offering is registered, you can find information (such as a registration statement or “Form S-1”) on SEC.gov through EDGAR.
  - If a promoter states that an offering is exempt from registration, and you are not an accredited investor, you should be very careful – most exemptions have net worth or income requirements.
  - Although ICOs are sometimes described as crowdfunding contracts, it is possible that they are not being offered and sold in compliance with the requirements of Regulation Crowdfunding or with the federal securities laws generally.
- Ask what your money will be used for and what rights the virtual coin or token provides to you. The promoter should have a clear business plan that you can read and that you understand. The rights the token or coin entitles you to should be clearly laid out, often in a white paper or development roadmap. You
should specifically ask about how and when you can get your money back in the event you wish to do so. For example, do you have a right to give the token or coin back to the company or to receive a refund? Or can you resell the coin or token? Are there any limitations on your ability to resell the coin or token?

- If the virtual token or coin is a security, federal and state securities laws require investment professionals and their firms who offer, transact in, or advise on investments to be licensed or registered. You can visit Investor.gov to check the registration status and background of these investment professionals.

- Ask whether the blockchain is open and public, whether the code has been published, and whether there has been an independent cybersecurity audit.

- Fraudsters often use innovations and new technologies to perpetrate fraudulent investment schemes. Fraudsters may entice investors by touting an ICO investment “opportunity” as a way to get into this cutting-edge space, promising or guaranteeing high investment returns. Investors should always be suspicious of jargon-laden pitches, hard sells, and promises of outsized returns. Also, it is relatively easy for anyone to use blockchain technology to create an ICO that looks impressive, even though it might actually be a scam.

- Virtual currency exchanges and other entities holding virtual currencies, virtual tokens or coins may be susceptible to fraud, technical glitches, hacks, or malware. Virtual tokens or virtual currency may be stolen by hackers.

**Investing in an ICO may limit your recovery in the event of fraud or theft. While you may have rights under the federal securities laws, your ability to recover may be significantly limited.**

If fraud or theft results in you or the organization that issued the virtual tokens or coins losing virtual tokens, virtual currency, or fiat currency, you may have limited recovery options. Third-party wallet services, payment processors, and virtual currency exchanges that play important roles in the use of virtual currencies may be located overseas or be operating unlawfully.

Law enforcement officials may face particular challenges when investigating ICOs and, as a result, investor remedies may be limited. These challenges include:

- Tracing money. Traditional financial institutions (such as banks) often are not involved with ICOs or virtual currency transactions, making it more difficult to follow the flow of money.

- International scope. ICOs and virtual currency transactions and users span the globe. Although the SEC regularly obtains information from abroad (such as through cross-border agreements), there may be restrictions on how the SEC can use the information and it may take more time to get the information. In some cases, the SEC may be unable to obtain information from persons or entities located overseas.

- No central authority. As there is no central authority that collects virtual currency user information, the SEC generally must rely on other sources for this type of information.

- Freezing or securing virtual currency. Law enforcement officials may have difficulty freezing or securing investor funds that are held in a virtual currency. Virtual currency wallets are encrypted and unlike money held in a bank or brokerage account, virtual currencies may not be held by a third-party custodian.

**Be careful if you spot any of these potential warning signs of investment fraud.**

- “Guaranteed” high investment returns. There is no such thing as guaranteed high investment returns. Be wary of anyone who promises that you will receive a high rate of return on your investment, with little or no risk.
• Unsolicited offers. An unsolicited sales pitch may be part of a fraudulent investment scheme. Exercise extreme caution if you receive an unsolicited communication—meaning you didn't ask for it and don't know the sender—about an investment opportunity.

• Sounds too good to be true. If the investment sounds too good to be true, it probably is. Remember that investments providing higher returns typically involve more risk.

• Pressure to buy RIGHT NOW. Fraudsters may try to create a false sense of urgency to get in on the investment. Take your time researching an investment opportunity before handing over your money.

• Unlicensed sellers. Many fraudulent investment schemes involve unlicensed individuals or unregistered firms. Check license and registration status on Investor.gov.

• No net worth or income requirements. The federal securities laws require securities offerings to be registered with the SEC unless an exemption from registration applies. Many registration exemptions require that investors are accredited investors; some others have investment limits. Be highly suspicious of private (i.e., unregistered) investment opportunities that do not ask about your net worth or income or whether investment limits apply.

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Before making any investment, carefully read any materials you are given and verify the truth of every statement you are told about the investment. For more information about how to research an investment, read our publication Ask Questions. Investigate the individuals and firms offering the investment, and check out their backgrounds on Investor.gov and by contacting your state securities regulator. Many fraudulent investment schemes involve unlicensed individuals or unregistered firms.

Additional Resources

SEC Investor Alert: Bitcoin and Other Virtual Currency-Related Investments
SEC Investor Alert: Ponzi Schemes Using Virtual Currencies
SEC Investor Alert: Social Media and Investing – Avoiding Fraud

The Office of Investor Education and Advocacy has provided this information as a service to investors. It is neither a legal interpretation nor a statement of SEC policy. If you have questions concerning the meaning or application of a particular law or rule, please consult with an attorney who specializes in securities law.