



Topic description

Non-functional Tokens (NFTs)

Non-fungible tokens (NFTs) are non-interchangeable units of data stored on a blockchain. NFTs are associated with different assets such as photos, videos, or physical assets – often sold as “ownership” tokens. Ownership of the NFT implies ownership of the linked asset. As NFT markets currently enter bubble territory, the legal reality is often overshadowed by marketing claims.

1. Computer Science Task

Describe the technical foundations and the realization of NFTs:

- How is an NFT created and stored?
- What are the functions of smart contracts for NFTs?
- Are NFTs completely decentralized? Are there "gatekeepers" or centralized entities in the middle?
- Describe technical problems, dangers, vulnerabilities, or attacks against NFTs that may arise
- Potentially perform analytics on popular NFT contracts

2. Law Task

Analyze the relevant legal issues with regard to NFTs by tackling the following tasks:

- Classify NFTs from a Swiss private law perspective
- Identify and analyze different NFT variants (fully on-chain, digital-only-assets)
- Analyze the following scenario: Person A creates an NFT of the monkey nature (<https://cryptoslam.io/bored-ape-yacht-club/mint/1536>) and sells it to Person B via an auction. Person C screenshots the monkey as shown on the website of the auction house and mints a new NFT with the image file and sells for a huge sum to person D.

Materials/Literature

BODÓ BALÁZS/GIANNOPOULOU ALEXANDRA/ MEZEI PÉTER/QUINTAIS JOÃO PEDRO, The Rise of NFTs: These aren't the droids you're looking for, in: European Intellectual Property Review 2022, available under: <<https://ssrn.com/abstract=4000423>>.

- CASALE-BRUNET SIMONE/RIBECA PAOLO/DOYLE PHILIP R./MATTAVELLI MARCO, Networks of Ethereum Non-Fungible Tokens: A graph-based analysis of the ERC-721 ecosystem, in: CoRR abs/2110.12545, 2021, available under: <<https://arxiv.org/abs/2110.12545>>.
- COFFMAN CLAY, Wash Trading: Who, What, Why, and What Should We Do About It?, Blog post, January 2022, available under: <<https://blog.cryptoslam.io/wash-trading-who-what-why-and-what-should-we-do-about-it/>>.
- CORNELIUS KRISTIN B., Betraying Blockchain: Accountability, Transparency and Document Standards for Non-Fungible Tokens (NFTs), in: Information 2021, 12, 358, available under: <<https://doi.org/10.3390/info12090358>>.
- KAULARTZ MARKUS/SCHMID ALEXANDER, Rechtliche Aspekte sogenannter Non-Fungible Tokens (NFTs), in: CB 2021, p. 298-302, available under: <<https://www.swisslex.ch/de/doc/essay/898eccf4-324c-4f11-8a10-4ccbf4d28bcb>>.
- KUGLER LOGAN, Non-Fungible Tokens and the Future of Art, A new blockchain-based technology is changing how the art world works, and changing how we think about asset ownership in the process, in: Commun. ACM, Vol. 64, No. 9, 2021, p. 19-20, available under: <<https://doi.org/10.1145/3474355>>.
- MARLINSPIKE MOXIE, My first impressions of web3, Blog post, January 2022, available under: <<https://moxie.org/2022/01/07/web3-first-impressions.html>>.
- SHARMA TANUSREE/ZHOU ZHIXUAN/HUANG YUN/WANG YANG, "It's A Blessing and A Curse": Unpacking Creators' Practices with Non-Fungible Tokens (NFTs) and Their Communities, in: CoRR abs/2201.13233, 2022, available under: <<https://arxiv.org/abs/2201.13233>>.
- WANG QIN, LI RUJIA, WANG QI, CHEN SHIPING, Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges, Tech Report, in: CoRR abs/2105.07447, 2021, available under: <<https://arxiv.org/abs/2105.07447>>.
- WEBER ROLF H., Haftungsfragen beim Handel von digitalen Vermögenswerten, in: SJZ 2021, p. 679-687, available under: <<https://www.swisslex.ch/de/doc/essay/8d417ded-2794-4065-9478-9acb0d50625d>>.