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(54) **Title:** SYSTEM AND METHOD FOR AUTHENTICATION OF RARENESS OF A DIGITAL ASSET

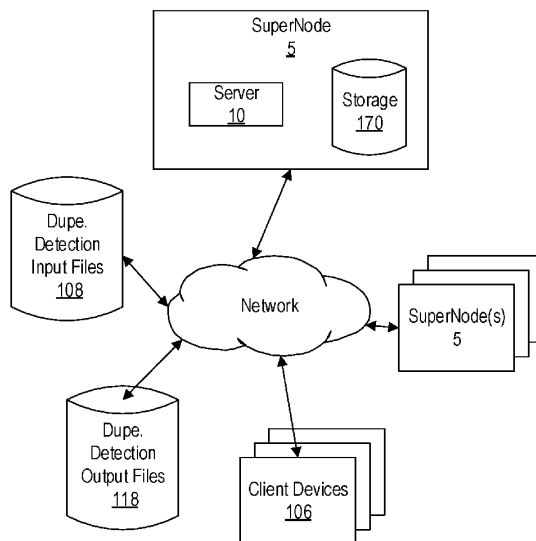


FIG. 1A

(57) **Abstract:** Systems and methods for asset fingerprinting and for authentication of rareness of a digital asset. The solution can be implemented in a peer-to-peer decentralized platform for securely registering, trading, and collecting non-fungible-tokens, which are associated with digital visual artwork and are recorded on a blockchain. The system comprises a Fingerprinting Engine (FE) and Relative Rareness Engine (RRE). The FE processes the digital asset (e.g., NET image) using trained neural network models, which generate a digital fingerprint vector representation of the image. The RRE compares the digital fingerprint vectors to a dataset of registered digital fingerprint vectors using multiple correlation measures. The correlation results are analyzed and combined to generate a Relative Rareness Score representing the rarity of the NET. Additionally, the RRE can evaluate rareness of the image relative to images on the Internet.

[Continued on next page]

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