

Filed on behalf of the Petitioner

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PERSEPHONE, GMBH
U.S. Application No. 15/368,221
Petitioner

v.

SIMON TECHNOLOGIES LLC
U.S. Application No. 14/726,075
Respondent

Case DER2017-00004

PETITIONER'S STATEMENT PURSUANT TO PAPER 29

Pursuant to the Board's Order set forth in Paper 29 dated October 4, 2024, which ordered (A) each party to "file, within one week of this Order, a paper (1) listing the party's claims as originally filed and as currently pending, and (2) providing a brief explanation of the status of the party's application", Petitioner provides the following:

A(1)a. PETITIONER'S ORIGINALLY FILED CLAIMS

The originally filed claims of U.S. Patent Application No. 15/368,221 are listed below:

1. An electronic platform residing at one or more servers that communicate with client devices associated with one or more users of the electronic platform, the electronic platform comprising:

- a product generation system that generates tradable investment products in response to product request information received from a user of the electronic platform;
- a product education system that provides online courses associated with the tradable investment products to the user of the electronic platform; and
- a product exchange system that establishes an information exchange environment between the user of the electronic platform and other users of the electronic platform.

2. The electronic platform of claim 1, wherein the product generation system generates builds tradable investment products for the user after the user of the electronic platform has completed at least one online course associated with the tradable investment products provided by the product education system.

3. The electronic platform of claim 1, wherein the product education system provides online courses associated with the tradable investment products to the user of the electronic platform after determining the user of the electronic platform is not certified to trade investment products generated by the product generation system.

4. The electronic platform of claim 1, wherein the product generation system builds investment products using a decision tree analysis of information provided by the user the of the electronic system, the information including: information associated with a user's investment criteria, information associated with a user's risk tolerance, information associated with a user's

investment horizon, information associated with a user's desired investment market, information associated with a user's level of investment protection, and information associated with real-time or near real-time conditions of the investment market.

5. The electronic platform of claim 1, wherein the product education system provides at least one online course to the user of the electronic platform that includes:

- a first course section that presents information to the user based on investment products of interest to the user and capable of being generated by the product generation system; and
- a second course section that presents a quiz to the user that is based on the information presented to the user.

6. The electronic platform of claim 1, wherein the product exchange system that establishes a social network service between the user of the electronic platform and other users of the electronic platform, the social network service facilitating a sharing of information between users that includes information identifying one or more investment products generated for the user by the product generation system.

7. The electronic platform of claim 1, wherein the product exchange system that establishes a product trading marketplace between the user of the electronic platform and other users of the electronic platform, the product trading marketplace facilitating a trading of generated investment products between users of the electronic platform.

8. A method performed by a electronic platform of generating a tradable investment product, the method comprising:

- receiving input from a user via a product generation interface of the electronic platform, the input including a selection of one or more investment product categories of interest to the user;
- before generating an investment product for the user that is based on the selected one or more investment product categories of interest to the user; launching an online seminar via an education interface of the electronic platform for the user; and
- upon receiving an indication that the user has completed the online seminar via the education interface provided by the electronic platform, generating one or more

investment products within the selected one or more invest product categories via the product generation interface of the electronic platform.

9. The method of claim 8, further comprising:

after generating one or more investment products within the selected one or more invest product categories via the product generation interface of the electronic platform, establishing, via an information exchange interface provided by the electronic platform, a social network service between the user of the electronic platform and other users of the electronic platform, the social network service facilitating a sharing of information between users that includes information identifying one or more investment products generated for the user by the product generation system.

10. The method of claim 8, further comprising:

after generating one or more investment products within the selected one or more invest product categories via the product generation interface of the electronic platform, establishing, via an information exchange interface provided by the electronic platform, a product trading marketplace between the user of the electronic platform and other users of the electronic platform, the product trading marketplace facilitating a trading of generated investment products between users of the electronic platform.

11. A non-transitory computer-readable medium whose contents, when executed by an electronic platform provided by one or more servers, cause the electronic platform to perform operations for providing a computing environment for trading structured investment products, the operations comprising:

generating tradable investment products in response to product request information received from a user of the electronic platform; providing online courses associated with the tradable investment products to the user of the electronic platform based on credentials assigned to the user of the electronic platform; and establishing information exchange events between the user of the electronic platform and other users of the electronic platform that are associated with tradable investment products generated for the user of the electronic platform.

12. A method performed by an electronic platform residing at one or more servers that communicate with client devices associated with one or more users of the electronic platform, the method comprising:

- receiving a request from a user to trade an investment product;
- identifying a training module associated with a certification program provided by the electronic platform and associated with trading the investment product via the electronic platform;
- presenting the training module to the user;
- determining whether the user has completed the training module;
- when the determining indicates that the user has completed the training module, identifying a test corresponding to the training module;
- presenting the test to the user;
- determining whether the user has passed the test;
- when the determining indicates that the user has passed the test, certifying the user to trade the investment product.

13. A method, performed by an electronic platform residing at one or more servers that communicate with client devices associated with one or more users of the electronic platform, of selecting a structured investment product for a user of the electronic platform, the method comprising:

- receiving, via a graphical user interface provided by the electronic platform, information from a user, the information including:
 - information associated with a user's investment criteria;
 - information associated with a user's risk tolerance;
 - information associated with a user's investment horizon;
 - information associated with a user's desired investment market; or
 - information associated with a user's level of investment protection;
- determining real-time or near real-time conditions of the investment market; and
- selecting one or more structured investment products based on the information received from the user and based on the real-time or near real-time conditions of the investment market.

14. A method, performed by an electronic platform residing at one or more servers that communicate with client devices associated with one or more users of the electronic platform, of presenting a tradable structured investment product to a user of the electronic platform, the method comprising:

- receiving, via an interface provided by the electronic platform, a request from the user of the electronic platform to perform a trade associated with a structured investment product;
- decomposing the structured investment product into two or more priced components of the structured investment product;
- generating pricing tables for each of the two or more priced components of the structured investment product;
- pre-fetching, from pricing servers located on an information exchange network that includes the electronic platform, pricing information for the two or more priced components based on a variety of different deal terms;
- receiving, via the interface provided by the electronic platform, input from the user of the electronic platform that identifies a set of deal terms to be applied to the two or more priced components when performing the trade of the structured investment product;
- interpolating the pricing tables based on the set of deal terms associated with the two or more priced components and provided by the user of the electronic platform;
- determining a price for the structured investment product that is based on the interpolated pricing tables for the two or more priced components; and
- presenting, via the interface of the electronic platform, information identifying the structured investment product and information identifying the determined price for the structured investment product.

15. A method, performed by an electronic platform residing at one or more servers that communicate with client devices associated with one or more users of the electronic platform, of presenting information associated with a structured investment product that is available for trading via the electronic platform, the method comprising:

- receiving, via an interface provided by the electronic platform, a selection of a structured investment product generated by the electronic platform;

performing a backtesting analysis for the selected structured investment product, the analysis include a comparison of a theoretical performance of the selected structured investment product to theoretical performances of other structured investment products generated by the electronic platform; and
presenting, via the interface provided by the electronic platform, a result of the performed analysis.

16. A method, performed by an electronic platform residing at one or more servers that communicate with client devices associated with one or more users of the electronic platform, of presenting tradable investment products to a user, the electronic platform comprising:

generating one or more tradable investment products in response to product request information received from a user of the electronic platform;
identifying other investment products managed by the electronic platform that share characteristics with the generated one or more tradable investment products; and
presenting an interface that displays information representing the identified investment products.

A(1)b. PETITIONER'S CURRENTLY PENDING CLAIMS

On August 27, 2024, in response to an Office Action dated February 27, 2024, Applicant filed the currently pending claims as set forth below:

1. (Currently Amended) At least one data processing system comprising an electronic platform residing at one or more servers that communicate with client devices associated with one or more users of the electronic platform, the electronic platform comprising:

a product generation system that generates tradable investment products in response to product request information received from a user of the electronic platform;
a product education system that provides online courses associated with the tradable investment products to the user of the electronic platform; and
a product exchange system that establishes an information exchange environment between the user of the electronic platform and other users of the electronic platform, each of the product generation system, the product education system and the product exchange system comprising:

- (i) at least one memory,
- (ii) at least one processor,
- (iii) at least one non-transitory computer-readable or computer-executable storage medium,
- (iv) at least one distributed computing system and distributed network for establishing events to:

store instructions on at least one of processor, memory, database, local database or distributed database and executing instructions by at least one processor configured to execute the instructions or distributed computing system in order to generate at least one proposal and or transaction request associated with at least one cryptographic hash and dynamic electronic contract; the at least one dynamic electronic contract representing at least one financial product, investment product, scenario, transaction request or transaction in order to provide means to share, execute, clear and or settle financial products, investment products, transaction requests, transactions or securities,

assign a unique cryptographic hash to a proposal, scenario, set of deal terms, financial product, investment product, transaction, transaction request, and

sign the at least one dynamic electronic contract with a generated private or public key,

wherein upon user request generate an encrypted link for file exchange in order for a first certified or non-certified electronic platform user to be able and to provide the means to send at least a second certified or non-certified electronic platform user the encrypted link to a dynamic electronic contract.

2. (Canceled).

3. (Canceled).

4. (Currently Amended) The at least one data processing system of claim 1, wherein the product generation system is configured to generate the tradable investment products using a decision tree analysis of information provided by the user of the electronic platform, the information including:

information associated with a user's investment criteria,

information associated with a user's risk tolerance,

information associated with a user's investment horizon,
information associated with a user's desired investment market,
information associated with a user's level of investment protection, and
information associated with real-time or near real-time conditions of the investment market.

5. (Currently Amended) The at least one data processing system of claim 1, wherein the product education system is configured to provide at least one online course identified or associated by cryptographic hash to the user of the electronic platform that includes:

- a first course section configured to present information to the user based on investment products of interest to the user identified or associated by cryptographic hash and capable of being generated by the product generation system; and
- a second course section configured to present a quiz to the user that is based on the information presented to the user.

6. (Currently Amended) The at least one data processing system of claim 1, wherein:
a product exchange system is configured to establish a social network service between the user of the electronic platform and other users of the electronic platform, and the social network service is configured to facilitate a sharing of information between users, the information including information identifying one or more investment products generated for the user by the product generation system.

7. (Previously Presented) The at least one data processing system of claim 1, wherein:
a product exchange system is configured to establish a product trading marketplace between the user of the electronic platform and other users of the electronic platform, and the product trading marketplace is configured to facilitate a trading of generated investment products between users of the electronic platform.

8. (Currently Amended) A method performed by one or more data processing systems for generating dynamic electronic documents containing classified data, comprising:

- accepting from a client device a demand for a first dynamic electronic document containing the classified data;
- generating a second dynamic electronic document, that matches the first dynamic electronic document, with at least one token associate with the classified data, utilizing a

first cohort of at least one processor which is in a first network that has not been certified to access the classified data;

receiving and relaying the second dynamic electronic document to a second cohort of at least one processor in a second network that is certified to access the classified data utilizing the first cohort of at least one processor;

accepting from the second cohort of at least one processor in the second network a link associated with at least one token and encrypted and matching the first dynamic electronic document; and

relaying the link to the client device.

9. (Previously Presented) The method of claim 8, further comprising, after generating one or more second investment products within the selected one or more investment product categories via the product generation interface of the electronic platform, establishing, via the information exchange interface, a social network service between the user of the electronic platform and other users of the electronic platform, wherein the social network service is configured to facilitate a sharing of information between users, the information including information identifying the one or more second investment products generated for the user by the product generation interface.

10. (Previously Presented) The method of claim 8, further comprising, after generating one or more second investment products within the selected one or more investment product categories via the product generation interface of the electronic platform, establishing, via the information exchange interface, a product trading marketplace between the user of the electronic platform and other users of the electronic platform, wherein the product trading marketplace is configured to facilitate a trading of generated investment products between users of the electronic platform.

11. (Currently Amended) A non-transitory computer-readable or computer-executable media having computer-executable instructions, that when executed by a first cohort of at least one processor which is in a first network that is not certified to access classified data, cause the first cohort of at least one processor to perform a method for generating dynamic electronic documents containing the classified data, with or without poll questions linked to a market factor of at least one plurality of market factors, ranges of outcomes, potential future performance

predictions, historical price data, backtested historical price data, distributions of ranges of outcomes representing future performance of classified or non-classified pricing data, the method comprising:

- receiving encrypted or unencrypted input from at least one user from at least one client device for a demand for a first dynamic electronic document containing the classified data;
- generating a second dynamic electronic document, that matches the first dynamic electronic document, associated with at least one token associated with the classified data;
- relaying the second dynamic electronic document to a second cohort of at least one processor in a second network that is certified to access the classified data;
- receiving from the second cohort of at least one processor in the second network a link associated to the first dynamic electronic document; and
- relaying the link to the client device.

Claims 12 - 16. (Canceled).

17. (Withdrawn) A method for dynamically generating data structures representing scenarios for an event linked to a plurality of market factors and a plurality expectations or performances, comprising:

- receiving responses to a set of poll questions, each poll question linked to a market factor of the plurality of market factors;
- generating a graph data storage structure representing scenarios for the plurality of market factors and the plurality of expectations or performances, each node in the graph data storage structure including a descriptor and a data value, the graph data storage structure including a root node, expectation or performance nodes connected to the root node, and market factor nodes connected to the outcome nodes, the root node corresponding to the event, each outcome node corresponding to one of the plurality of outcomes, and each market factor node corresponding to one of the market factors and including a data value;
- filtering the responses for unreasonable input or unreasonable pricing components or unreasonable level of risk tolerance or unreasonable potential investment products that

cannot be priced given the investment objectives, risks and/or other considerations based on text mining factors;

applying a set of rules to the filtered responses to generate values for the market factors;

populating the market factor nodes in the graph data storage structure with the data values for the corresponding market factors to generate scenarios for the outcome nodes; and

providing for display a user interface including visual elements indicating the scenarios and a distribution of responses, wherein each scenario is a path from the root node to a leaf node of the generated graph data storage structure.

18. (Withdrawn) A non-transitory machine-readable medium storing instructions which implement the method of Claim 17, wherein said instructions, when executed, cause one or more processors to perform operations comprising:

receiving responses to a set of poll questions, each poll question linked to a macro factor of the plurality of macro factors, wherein the responses to the poll questions were generated by:

processing a plurality of data feeds by applying a first set of rules;

generating a plurality of events defined by the second set of rules based on the processing;

selecting the event from the plurality of events; generating a set of macro factors by applying a second set of rules to the event;

applying a third set of rules to identify the plurality of macro factors from among the set of macro factors and generate the set of poll questions; and

providing for display a user interface with visual elements for the poll questions linked to macro factors and one or more controls for inputting responses to the poll questions;

generating a graph data storage structure representing scenarios for the plurality of macro factors and the plurality of outcomes, each node in the graph data storage structure including a descriptor and a data value, the graph data storage structure including a root node, outcome nodes connected to the root node, and macro factor nodes connected to the outcome nodes, the root node corresponding to the event, each outcome node corresponding to one of the plurality of outcomes, and each macro factor node corresponding to one of the macro factors and including a data value;

applying a fourth set of rules to at least some of the responses to generate values for the macro factors;

populating the macro factor nodes in the graph data storage structure with the data values for the corresponding macro factors to generate scenarios for the outcome nodes; and providing for display a user interface including visual elements indicating the scenarios and a distribution of responses, wherein each scenario is a path from the root node to a leaf node of the generated graph data storage structure.

19. (Withdrawn) A system for generating scenarios under the control of the non-transitory machine-readable medium recited in Claim 18, and which further comprises user interface elements representing valuations of instruments under the scenarios, the system comprising:

at least one processor; and

a machine-readable medium storing instructions that, when executed, cause the at least one processor to perform operations including:

receiving responses to a set of poll questions, each poll question linked to a macro factor of the plurality of macro factors, wherein the responses to the poll questions were generated by: processing a plurality of data feeds by applying a first set of rules;

generating a plurality of events defined by the second set of rules based on the processing;

selecting the event from the plurality of events;

generating a set of macro factors by applying a second set of rules to the event;

applying a third set of rules to identify the plurality of macro factors from among the set of macro factors and generate the set of poll questions; and

providing for display a user interface with visual elements for the poll questions linked to macro factors and one or more controls for inputting responses to the poll questions;

generating a graph data storage structure representing scenarios for the plurality of macro factors and the plurality of outcomes, each node in the graph data storage structure including a descriptor and a data value, the graph data storage structure including a root node, outcome nodes connected to the root node, and macro factor nodes connected to the outcome nodes, the root node corresponding to the event, each outcome node corresponding to one of the plurality of outcomes, and each macro factor node corresponding to one of the macro factors and including a data value;

filtering the responses for bias based on sentiment factors, the filtering including:

applying natural language processing to at least a subset of the responses to identify sentiments of authors of the responses; and

eliminating responses from authors for whom the identified sentiment indicates bias with regard to the event;
applying a set of rules to the filtered responses to generate values for the macro factors;
populating the macro factor nodes in the graph data storage structure with the data values for the corresponding macro factors to generate scenarios for the outcome nodes; and
providing for display a user interface including visual elements indicating the scenarios and a distribution of responses, wherein each scenario is a path from the root node to a leaf node of the generated graph data storage structure.

20. (Withdrawn) The method of claim 17, further comprising generating the set of macro factors by applying rules to the event, the rules generated, at least in part, using at least one of:
deep learning on historical data, and regression on historical data.

21. (Withdrawn) The non-transitory machine-readable medium of claim 18, the operations further comprising: filtering the responses for bias based on sentiment factors, wherein the fourth set of rules are applied to the filtered responses.

22. (Withdrawn) The non-transitory machine-readable medium of claim 21, wherein each macro factor is associated with a range of acceptable data values as responses for the macro factor, and the user interface with visual elements for the poll questions further includes an indication of the range of acceptable data values acceptable for each macro factor.

23. (Withdrawn) The non-transitory machine-readable medium of claim 18, wherein the second set of rules are generated, at least in part, using at least one of:
deep learning on historical data; and
regression on historical data.

24. (Withdrawn) The non-transitory machine-readable medium of claim 18, wherein the operations further comprise generating the ranges of acceptable responses for the macro factors using a scale with a middle point representing no change, a portion representing upward change to an extreme, and another portion representing downward change to another extreme.

25. (Withdrawn-Currently Amended) One or more data processing systems for generating dynamic electronic documents containing non-public data upon verified, validated, multi-datapoint customized pricing, classified one or more investment criteria, one or more user

requests identified by cryptographic hash, certifying one or more electronic platform users on one or more nodes for representative valuations of instruments, identify upon user request or associated generated structured product or financial derivative or upon user request by artificial intelligence or backtesting analysis or future scenario analysis encrypted and secured by cryptographic hash structured investment proposals via tree path or graph cycle or computer-readable or computer-executable instructions;

generating and computing at least one proposed priced or to be priced component or structured product or financial derivative or security, each of said systems comprising:

- (i) at least one memory,
- (ii) at least one processor,
- (iii) at least one non-transitory computer-readable storage medium,
- (iv) at least one distributed computing system and distributed network for establishing events in order to

determine per credentialized electronic platform user or electronic platform user session or node or tree path or graph cycle identified by cryptographic hash at least one certified and approved electronic platform user request associated with at least one investment product or investment product proposal associated with trading, settlement or risk metrics, one or more trading cost adjustments or pricing requirements;

ad hoc dynamically generating and traversing at least one associated decision-tree identified by cryptographic hash associated with at least one investment backtesting or future scenario analysis associated with at least one generated or to be generated investment product based on at least one threshold representing at least one dependent or independent risk level or risk metric, correlation, variance, sensitivity or other pricing component identified by cryptographic hash;

computing and/or converting at least one pricing component feature or investment product feature identified by cryptographic hash to at least one pricing component target or investment product target identified by cryptographic hash according to one or more pricing models and pricing conditions represented by at least one user request or user response or artificial intelligence algorithm or electronic platform event or computation event or information exchange event or market factor or at least a second electronic platform user's request or response;

classifying one or more user request for investment products or investment product proposals into a product group or user group or feature space or sample space;

computing, storing, aggregating or exchanging associated valuation adjustments or predicted or upon user request required valuation adjustments of associated investment products or pricing components or risk metrics identified by cryptographic hash on at least one node on at least one distributed decentralized network;

aggregating associated generated feature and target data values or prices;

proposing at least one associated or representative existing or customized investment product based on user input or output or eligibility approval or denial or certification status;

determining during the eligibility process during a user's electronic platform session whether a structured product, financial derivative, over the counter derivative, instrument, security or other financial product identified by cryptographic hash is eligible for trading, sharing or settlement or can be transferred or is or was or would be eligible for trading at, before, after or during a theoretical trading date, discrete point in time or market scenario;

confirming eligibility of a proposed, customized, settled or syndicated financial or investment product by storing associated information and encrypted data in a memory, at least one node on the distributed network identifiable by cryptographic hash, stored, secured and encrypted on at least one decentralized distributed cryptographic hash table;

approving or denying associated parties or electronic platform users participation and/or authorization for proposed, existing, shared, settled or exchanged investment products on the distributed network based on certification status and eligibility to share, trade or settle an investment product or other pricing component;

updating the associated current investment list and investment queue;

updating associated current pricing data or set of deal terms or one or more portions of deal terms;

sending at least one encrypted and by cryptographic hash secured and identifiable message to at least one associated party or electronic platform user or counterparty associated with at least one dynamic electronic contract;

storing intermediate associated pluralities of portions of deal terms, sets of deal terms and pricing data associated or pre-fetched from one or more associated nodes on the distributed network or distributed cryptographic hash table in a memory;

certifying the at least one platform user's associated certification progress and or request;

updating the corresponding certification associated with at least one consumed or unconsumed item or state;

generating and storing one or more associated resultant document term matrix or matrices for validated distributed data for future or further event-driven computing steps for future generating of investment products;

generating or updating at least one non-transitory computer-readable storage medium storing associated computer-executable instructions,

storing generated and settled investment products on at least one decentralized cryptographic hash table and at least one node on at least one distributed network.

26. (Withdrawn) The one or more data processing systems of claim 25 wherein the eligibility process further comprises:

determining and confirming whether a potential loss associated with a structured product, financial derivative, security or other investment product is limited to the amount or principle paid or invested for the associated investment product or security;

determining and confirming whether sufficient liquidity associated with a structured product, financial derivative, security or other investment product is available or would be available for trading or settlement;

determining and confirming by cryptographic hash on at least one distributed decentralized cryptographic hash table whether a structured product, financial derivative, security or other investment product can be assigned or is on an assignment list on the electronic platform;

determining and confirming whether a structured product, financial derivative, security or other investment product is monitored by a corporate-process risk monitoring process;

determining and confirming whether a structured product, financial derivative, security or other investment product is bound to regulatory needs, rules, requirements and laws or current laws of the relevant domicile;

determining and confirming whether a minimum set notional associated with a structured product, financial derivative, security or other investment product has been committed by a or the associated at least one electronic platform users.

27. (Withdrawn) The one or more data processing systems of claim 26 wherein investment product data, pricing components, deal terms, set of deal terms, credentials of electronic platform user or users, financial advisors, brokers and dealers, investment product issuers, security depositories and or protected private client investment product data or credentials or corporate-process protected set of deal terms or portions of deal terms or corporate-process are identifiable by cryptographic hash at one or more decentralized distributed cryptographic hash tables.

28. (Withdrawn) The one or more data processing systems of claim 25 wherein the at least one by cryptographic hash cryptographically protected and encrypted and identifiable message is sent to at least one associated electronic platform user and or at least one associated node on the distributed network and at least one protected distributed cryptographic hash table.

29. (Withdrawn) The one or more data processing systems of claim 25 wherein the message or notification is an approval, denial, acceptance, eligibility confirmation, computer readable instruction or computer-executable instruction, instruction for an electronic platform user, certification message, invitation message, commitment message, validation message, verification message or authorization message which are all identifiable by cryptographic hash.

30. (Withdrawn) The one or more data processing systems of claim 25 further comprising:
generating, upon user request or upon user input or artificial intelligence or combination thereof, questions associated with investment criteria, investment proposals, proposed deal terms, proposed priced or to be priced components;
analyzing, via artificial intelligence, associated collateral, capital, summing, settlement or trading requirements based on market data and user- defined thresholds;
generating, an associated user-session document term matrix, decision tree and graph;
caching associated preliminary deal data in a memory;
asking for or granting authorization from or to other users, to access or cryptographic-hash exchange for associated data for investment products on one or more nodes or leafs;
presenting, on one or more authorized computing devices during sessions associated by cryptographic hash, upon user request or upon user input or artificial intelligence,

questions associated with associated investment criteria;

hashing, associated user-responses or with artificial intelligence generated responses or proposed investment criteria;

exchanging, associated aggregated or computed or protected data on a certified and authorized basis to one or more parties on one or more nodes;

computing, associated intertemporal independent or dependent risk or pricing components represented by events identified by cryptographic hash represented by paths on a decision tree identified by cryptographic hash represented by a cycle on a graph identified by cryptographic hash based on pricing-tables on one or more nodes representing a first and at least a second party to a transaction or contract;

storing, verified data about granularity of an associated financial instrument;

generating, corresponding associated investment products for asking the involved parties to authorize and grant access to one or more associated nodes;

generating, corresponding associated one or more contracts stored on one or more nodes identified by cryptographic hash;

identify matching investment objectives or graph cycles or tree path dependencies of existing products or contracts;

updating, one or more associated pluralities of portions of deal terms on one or more associated nodes;

update at least one validated user certification state;

storing, generated investment products, agreements, contracts on one or more associated nodes on a distributed hash table;

generating associated investment product contracts as computer code; exchanging, generated investment products with other users, other users'

responses, products or proposals;

assigning an investment product to one or more users, wherein assigning is associating credentials credentialized to a user with an associated investment product with cryptographic hash;

generating one or more associated resultant document term matrix or matrices for future or further event-driven computing steps for validated distributed data on a decentralized distributed cryptographic hash table and distributed network.

31. (Withdrawn) The one or more data processing systems of claim 17 wherein the computation using market factors is an interpolation.

32. (Withdrawn) The one or more data processing systems of claim 25, wherein the distributed network is a decentralized distributed peer-to-peer network.

33. (Withdrawn) The one or more data processing systems of claim 25 wherein the computation using market factors is a substitution.

34. (Withdrawn) The one or more data processing systems of claim 30 wherein the certification states are consumed or unconsumed.

35. (Withdrawn) The one or more data processing systems of claim 25 wherein the valuation adjustment or trading adjustment or pricing requirement or margin requirement is a CVA, KVA, DVA, FVA, cost of margin, collateral cost, overhead cost, cost of transaction tax, product cost or initial margin or variation margin identified by cryptographic hash on the decentralized cryptographic hash table or on at least one node on the distributed network.

36. (Withdrawn) The one or more data processing systems of claim 25 wherein the investment backtesting analysis or future scenario analysis also comprises one or more ranges of performance or theoretical performance of investment products or investment product proposals represented by computed, associated intertemporal independent or dependent risk or pricing components represented by events identified by cryptographic hash represented by paths on a decision tree identified by cryptographic hash represented by a cycle on a graph identified by cryptographic hash based on pricing-tables on one or more nodes representing a first and at least a second party.

37. (Withdrawn) The one or more data processing systems of claim 25 wherein one or more systems establish encrypted and cryptographically secured at least one connection or transmission of relevant or associated data or pricing components or credential exchange between at least one electronic platform user or node on the distributed peer-to-peer network and another electronic platform user or node on the distributed peer-to-peer network.

38. (Withdrawn) The one or more data processing systems of claim 25 wherein a dynamic electronic contract or term sheet identified by cryptographic hash is a certificate.

39. (Withdrawn) The one or more data processing systems of claim 25 wherein a financial product or investment product or over the counter derivative or set of deal terms is a block trade.

40. (Withdrawn) The one or more data processing systems of claim 25 wherein a securities repository is at least one decentralized distributed cryptographic hash table on at least one distributed network.

41. (Withdrawn) The one or more data processing systems of claim 25 wherein the electronic platform upon user request generates an investment product or investment product proposal identified by cryptographic hash after guiding the user during a choice and consequence analysis through at least one checkpoint.

42. (Previously Presented) An electronic platform residing at one or more servers that communicates with client devices associated with one or more users of the electronic platform, the electronic platform comprising:

- at least one memory configured to store instructions; and

- at least one processor communicatively coupled to the at least one memory, the at least one processor configured when executing the instructions to:

 - execute a product generation system to generate tradable investment products in response to product request information received from a user of the electronic platform, wherein to generate the tradable investment products, the at least one processor is configured to execute the product generation system to:

 - decompose each tradable investment product into two or more priced components, each of the priced components having a different maturity,

 - generate pricing tables for each of the two or more priced components, the generated pricing tables comprising one or more risk calculations for computing price adjustments,

 - re-fetch, from a third party market server before a user input by the user of the electronic platform, pricing information for the two or more priced components based on a variety of deal terms,

 - receive the user input, the user input identifying a set of the deal terms to be applied to the two or more priced components,

 - interpolate the pricing tables based on the set of the deal terms, and

determine a price for each tradable investment product by (i) summing interpolated prices for each of the two or price components based on the interpolated pricing tables, and (ii) applying the pricing adjustments using the risk calculations;

execute a product education system to provide online courses associated with the tradable investment products to the user of the electronic platform after determining that the user of the electronic platform is not certified to trade investment products generated by the product generation system, the product education system comprising a management dashboard configured to receive manager approval or selection of the online courses for the tradable investment products, wherein the at least one processor is further configured when executing the product education system to display, in response to certification of the user to trade the tradable investment products, a control for user navigation to the product generation system, wherein in response to detecting the control being actuated, the at least one processor is further configured to navigate the user from the product education system to the product generation system; and

execute a product exchange system to:

establish an information exchange environment between the user of the electronic platform and other users of the electronic platform,

receive a selection of a first tradable investment product from the user of the electronic platform,

perform investment backtesting and scenario analysis on the first tradable investment product, and

display results of the investment backtesting to the user, the results showing how the first tradable investment product would have performed in a theoretical market scenario.

43. (Previously Presented) The electronic platform of claim 42, wherein the at least one processor is further configured when executing the product generation system to generate the tradable investment products for the user after the user of the electronic platform has completed at least one online course associated with the tradable investment products provided by the product education system.

44. (Previously Presented) The electronic platform of claim 42, wherein the at least one processor is further configured when executing the product generation system to generate the tradable investment products using a decision tree analysis of information provided by the user the of the electronic platform, the information including:

- information associated with a user's investment criteria,
- information associated with a user's risk tolerance,
- information associated with a user's investment horizon,
- information associated with a user's desired investment market,
- information associated with a user's level of investment protection, and
- information associated with real-time or near real-time conditions of the investment market.

45. (Previously Presented) The electronic platform of claim 42, wherein the at least one processor is further configured when executing the product education system to provide at least one online course to the user of the electronic platform that includes:

- a first course section configured to present information to the user based on investment products of interest to the user and capable of being generated by the product generation system; and
- a second course section configured to present a quiz to the user that is based on the information presented to the user.

46. (Previously Presented) The electronic platform of claim 42, wherein the product exchange system is configured to establish a product trading marketplace between the user of the electronic platform and other users of the electronic platform.

47. (Previously Presented) A method performed by an electronic platform of generating a tradable investment product, the method comprising:

- receiving input from a user via a product generation interface of the electronic platform, the input including a selection of one or more investment product categories of interest to the user;
- before generating an investment product for the user that is based on the selected one or more investment product categories of interest to the user, launching an online seminar via an education interface of the electronic platform for the user, wherein the education

interface comprises a management dashboard for receiving manager approval or selection of the online seminar for the investment product;

upon receiving an indication that the user has successfully completed the online seminar via the education interface of the electronic platform such that the user is certified to trade the investment product, displaying a control for user navigation to the product generation interface of the electronic platform;

in response to user actuation of the control, navigating the user from the education interface of the electronic platform to the product generation interface of the electronic platform;

generating the investment product within the selected one or more investment product categories via the product generation interface of the electronic platform, wherein generating the investment product comprises:

- decomposing the investment product into two or more priced components, each of the priced components having a different maturity,
- generating pricing tables for each of the two or more priced components, the generated pricing tables comprising one or more risk calculations for computing price adjustments,
- pre-fetching, from a third party market server before a user input by the user of the electronic platform, pricing information for the two or more priced components based on a variety of deal terms,
- receiving the user input, the user input identifying a set of the deal terms to be applied to the two or more priced components,
- interpolating the pricing tables based on the set of the deal terms, and
- determining a price for the investment product by (i) summing interpolated prices for each of the two or price components based on the interpolated pricing tables, and (ii) applying the pricing adjustments using the risk calculations;

establishing an information exchange interface between the user and other users of the electronic platform;

receiving a selection of the investment product from the user;

performing investment backtesting and scenario analysis on the investment product; and

isplaying results of the investment backtesting to the user, the results showing how the investment product would have performed in a theoretical market scenario.

48. (Currently Amended) The method of claim 47, further comprising, after generating one or more second investment products within the selected one or more investment product categories via the product generation interface of the electronic platform, establishing, via the information exchange interface, a product trading marketplace between the user of the electronic platform and other users of the electronic platform.

49. (Previously Presented) A non-transitory computer-readable medium storing instructions that, when executed by a processor of an electronic platform, cause the processor to perform operations comprising:

- receiving input from a user via a product generation interface of the electronic platform, the input including a selection of one or more investment product categories of interest to the user;

- before generating an investment product for the user that is based on the selected one or more investment product categories of interest to the user, launching an online seminar via an education interface of the electronic platform for the user, wherein the education interface comprises a management dashboard for receiving manager approval or selection of the online seminar for the investment product;

- upon receiving an indication that the user has successfully completed the online seminar via the education interface of the electronic platform such that the user is certified to trade the investment product, displaying a control for user navigation to the product generation interface of the electronic platform;

- in response to user actuation of the control, navigating the user from the education interface of the electronic platform to the product generation interface of the electronic platform;

- generating the investment product within the selected one or more investment product categories via the product generation interface of the electronic platform, wherein generating the investment product comprises:

- decomposing the investment product into two or more priced components, each of the priced components having a different maturity,

- generating pricing tables for each of the two or more priced components, the generated pricing tables comprising one or more risk calculations for computing price adjustments,

pre-fetching, from a third party market server before a user input by the user of the electronic platform, pricing information for the two or more priced components based on a variety of deal terms,

receiving the user input, the user input identifying a set of the deal terms to be applied to the two or more priced components,

interpolating the pricing tables based on the set of the deal terms, and

determining a price for the investment product by (i) summing interpolated prices for each of the two or price components based on the interpolated pricing tables, and (ii) applying the pricing adjustments using the risk calculations;

establishing an information exchange interface between the user and other users of the electronic platform;

receiving a selection of the investment product from the user;

performing investment backtesting and scenario analysis on the investment product; and

displaying results of the investment backtesting to the user, the results showing how the investment product would have performed in a theoretical market scenario.

50. (Previously Presented) The electronic platform of claim 42, wherein:

the user input further comprises a user modification to at least one deal term in the set of the deal terms; and

the product generation system is further configured to pre-fetch, from the third party market server, additional pricing information for the two or more priced components in response to the user modification to the at least one deal term.

51. (New) One or more non-transitory computer-readable media storing instructions, when executed by one or more processors on one or more data processing systems, cause the one or more data processing systems to execute instructions to generate one or more proposals, associated one or more cryptographic hashes and dynamic electronic contracts in order to be able and provide means to share, execute, clear and settle financial derivatives, investment products, transaction requests, transactions or securities, the instructions comprising:

generating tradable investment products in response to product request information received from a user of the electronic platform;

providing online courses associated with the tradable investment products to the user of the electronic platform based on credentials assigned to the user of the electronic platform;

establishing information exchange events between the user of the electronic platform and other users of the electronic platform that are associated with tradable investment products generated for the user of the electronic platform;

storing instructions on at least one of processor, memory, database, local database or distributed database and executing instructions by at least one processor configured to execute the instructions or distributed computing system in order to generate at least one proposal and or transaction request associated with at least one cryptographic hash and dynamic electronic contract; the at least one dynamic electronic contract representing at least one financial product, investment product, scenario, transaction request or transaction in order to provide means to share, execute, clear and or settle financial products, investment products, transaction requests, transactions or securities;

assigning a unique cryptographic hash to a proposal, scenario, set of deal terms, financial product, investment product, transaction, transaction request; and

signing the at least one dynamic electronic contract with a generated private or public key;

wherein upon user request generate an encrypted link for file exchange in order for a first certified or non-certified electronic platform user to be able and to provide the means to send at least a second certified or non-certified electronic platform user the encrypted link to a dynamic electronic contract.

A(2). CURRENT STATUS OF U.S. PATENT APPLICATION NO. 15/368,221

The above current claims were entered with an Amendment filed August 27, 2024 and forward to Examiner August 28, 2024. The claims await reconsideration by the Examiner. Claims 42-50 are maintained and will be amended as required to remain the same or substantially the same as the pending claims from U.S. Patent Application No. 14/726,075 (hereinafter referred to as the '075 application).

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (e)(4)

The undersigned hereby certifies that a copy of the foregoing PETITIONER'S STATEMENT PURSUANT TO PAPER 29 is being served via electronic mail, as previously consented to by Respondent, on October 11, 2024:

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Dated: October 11, 2024

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