What is claimed is:

1. A system for processing and monitoring trade data, the system comprising a computing device having at least one processor and memory storing computer-executable instructions that, when executed by the at least one processor, cause the computing device to:

receive a plurality of data representing sets of trade activities;

receive a plurality of user inputs from a plurality of user client devices, wherein each user input of the plurality of user inputs comprises an identification of at least a datum representing a set of trade activities of the plurality of data representing sets of trade activities and an identification of a trade irregularity associated with the set of trade activities;

convert the plurality of data representing sets of trade activities and the plurality of user inputs to training data, wherein to convert to the training data, execution of the computer-executable instructions by the at least one processor further causes the computing device to:

convert the plurality of data representing sets of trade activities into musical piece representations, wherein the musical piece representations comprise musical notes and rests, wherein the musical notes represent trade activity, and the rests represent trade inactivity; and

convert the musical piece representations into a plurality of metrical trees; and

in response to receiving the plurality of metrical trees of the training data as inputs, generate a classifier as a function of the plurality of metrical trees, wherein to generate the classifier, the execution of the computer-executable instructions by the at least one processor further causes the computing device to:

set an initial default value of a score representing a probability of trade irregularity;

compare a first metrical tree of the plurality of metrical trees to a plurality of trigger trees stored in a lessons database, each trigger tree of the plurality of trigger trees representing a corresponding trade irregularity and comprising a context of a unique trade style or pattern, wherein the context corresponds

to data characteristics comprising indicators of temporal hierarchy, pitch, and rhythm in streams of musical tracks;

identify at least one trigger tree of the plurality of trigger trees indicating at least a closest match to the first metrical tree;

in response to identifying the at least one trigger tree, modify the score to represent an increased probability of trade irregularity;

compare the score to a preconfigured threshold; and

in response to the score failing to meet the preconfigured threshold:

classify the first metrical tree as a first datum of a trade irregularity;

update the training data with the first datum of a trade irregularity; and

update a trigger counter for a subset of associated lessons in the lessons database, wherein subsequent comparisons of metrical trees are performed for the subset of associated lessons based on the trigger counter.

2. The system of claim 1, wherein to convert the plurality of data representing sets of trade activities and the plurality of user inputs to training data, the execution of the computer-executable instructions by the at least one processor further causes the computing device to:

classify each user input and the datum to a genre of trade activity, wherein the genre is classified at least in part by the indicators of temporal hierarchy, pitch, and rhythm; and

convert the plurality of data representing sets of trade activities and the plurality of user inputs to training data as a function of the genre, wherein the training data is categorized at least in part by corpora comprising trade size and market timing.

3. The system of claim 2, wherein the genre further comprises a previously identified genre, and the execution of the computer-executable instructions by the at least one processor further causes the computing device to modify the previously identified genre.

4. The system of claim 2, wherein to generate the classifier, the execution of the computer-executable instructions by the at least one processor further causes the computing device to

generate the classifier using training data associated with a single genre.

5. The system of claim 1, wherein to convert the plurality of data representing sets of trade activities and the plurality of user inputs to training data, the execution of the computer-executable instructions by the at least one processor further causes the computing device to:

use a machine-learning process to discover at least a hidden model in the plurality of sets of trade activities, wherein the machine-learning process receives tune control parameters from a graphical user interface, and wherein the tune control parameters provide additional user identifications to generate background tracks for conversion to modified versions of trade sequences; and

convert the plurality of sets of trade activities including the modified versions of trade sequences to training data using a plurality of user identifications including the additional user identifications and the hidden model discovered by the machine-learning process.

6. The system of claim 5, wherein to convert the plurality of data representing sets of trade activities and the plurality of user inputs to training data, the execution of the computer-executable instructions by the at least one processor further causes the computing device to:

retrieve a plurality of stored models of trade activity;

simulate at least one model trade using the hidden model or the plurality of stored models;

calculate an outcome of the at least one model trade; and

determine a suitability of the hidden model as a function of the outcome.

7. The system of claim 6, wherein to calculate the outcome, the execution of the computer-executable instructions by the at least one processor further causes the computing device to:

determine a datum representing trade size and market time boundaries; and

back-test the at least one model trade based on the datum representing trade size and market time boundaries.

8. The system of claim 1, wherein the execution of the computer-executable instructions by the at least one processor further causes the computing device to:

receive a current set of trade activities; and

classify the current set of trade activities using the classifier.

9. The system of claim 8, wherein:

the classifier further comprises a trade pattern classifier;

the current set of trade activities is associated with a pattern of trades occurring at a first trading desk; and

the execution of the computer-executable instructions by the at least one processor further causes the computing device to:

classify the current set of trade activities as a pattern of trades occurring at a second trading desk, wherein the first trading desk is distinct from the second trading desk; and

identify a possible desk-hopping scenario as a function of the classification.

10. The system of claim 8, wherein the execution of the computer-executable instructions by the at least one processor further causes the computing device to convert the current set of trade activities to a second metrical tree, and wherein the classifier is configured to identify matching trees in the training data.

11. A method for processing and monitoring trade data, the method comprising:

receiving a plurality of data representing sets of trade activities;

receiving a plurality of user inputs from a plurality of user client devices, wherein each user input of the plurality of user inputs comprises user identifications comprising an identification of at least a datum representing a set of trade activities of the plurality of data representing sets of trade activities and an identification of a trade irregularity associated with the set of trade activities;

converting the plurality of data representing sets of trade activities and the plurality of user inputs to training data, wherein converting to the training data comprises:

converting the plurality of data representing sets of trade activities into musical piece representations, wherein the musical piece representations comprise musical notes and rests, wherein the musical notes represent trade activity, and the rests represent trade inactivity; and

converting the musical piece representations into a plurality of metrical trees; and

in response to receiving the plurality of metrical trees of the training data as inputs, generating a classifier as a function of the plurality of metrical trees, wherein generating the classifier comprises:

setting an initial default value of a score representing a probability of trade irregularity;

comparing a first metrical tree to a plurality of trigger trees stored in a lessons database, each trigger tree of the plurality of trigger trees representing a corresponding trade irregularity and comprising a context of a unique trade style or pattern, wherein the context corresponds to data characteristics comprising indicators of temporal hierarchy, pitch, and rhythm in streams of musical tracks;

identifying at least one trigger tree of the plurality of trigger trees indicating at least a closest match to the first metrical tree using a nearest-neighbors algorithm, wherein using the nearest-neighbors algorithm further comprises:

identifying at least one trigger tree having a minimal distance to the first metrical tree;

in response to identifying the at least one trigger tree, modifying the score to represent an increased probability of trade irregularity;

comparing the score to a preconfigured threshold; and

in response to the score failing to meet the preconfigured threshold:

classifying the first metrical tree as a first datum of a trade irregularity;

updating the training data with the first datum of a trade irregularity; and

updating a trigger counter for a subset of associated lessons in the lessons database, wherein subsequent comparisons of metrical trees are performed for the subset of associated lessons based on the trigger counter.

12. The method of claim 11, wherein converting the plurality of data representing sets of trade activities and the plurality of user inputs into training data further comprises:

classifying each user input and the datum to a genre of trade activity, wherein the genre is classified at least in part by the indicators of temporal hierarchy, pitch, and rhythm; and

converting the plurality of data representing sets of trade activities and the plurality of user

inputs to training data as a function of the genre, wherein the training data is categorized at least in part by corpora comprising trade size and market timing.

13. The method of claim 12, wherein the genre further comprises a previously identified genre, and the method further comprises modifying the previously identified genre.

14. The method of claim 12, wherein generating the classifier further comprises generating the classifier using training data associated with a single genre.

15. The method of claim 11, wherein converting the plurality of data representing sets of trade activities and the plurality of user inputs to training data further comprises:

using a machine-learning process to discover at least a hidden model in the plurality of sets of trade activities, wherein the machine-learning process receives tune control parameters from a graphical user interface, and wherein the tune control parameters provide additional user identifications to generate background tracks for conversion to modified versions of trade sequences; and

converting the plurality of sets of trade activities to training data using a plurality of the user identifications including the additional user identifications and the hidden model discovered by the machine-learning process.

16. The method of claim 15, wherein converting the plurality of data representing sets of trade activities and the plurality of user inputs to the training data further comprises:

retrieving a plurality of stored models of trade activity;

simulating at least one model trade using the hidden model or the plurality of stored models;

calculating an outcome of the at least one model trade; and

determining a suitability of the hidden model as a function of the outcome.

17. The method of claim 16, wherein calculating the outcome comprises:

determining a datum representing trade size and market time boundaries; and

back-testing the at least one model trade based on the datum representing trade size and market time boundaries.

18. The method of claim 11, further comprising:

receiving a current set of trade activities; and

classifying the current set of trade activities using the classifier.

19. The method of claim 18, wherein:

the classifier further comprises a trade pattern classifier;

the current set of trade activities is associated with a pattern of trades occurring at a first trading desk; and

the method further comprises:

classifying the current set of trade activities as a pattern of trades occurring at a second trading desk, wherein the first trading desk is distinct from the second trading desk; and

identifying a possible desk-hopping scenario as a function of the classification.

20. The method of claim 18, further comprising converting the current set of trade activities to a second metrical tree, wherein the classifier is configured to identify matching trees in the training data.

21. A system for processing and monitoring trade data, the system comprising a computing device having at least one processor, the computing device configured to:

receive data representing a set of trade activities;

transform the data representing the set of trade activities to a musical piece representation;

convert the musical piece representation to a metrical tree, wherein notes of the musical piece representation are recorded in labeled leaf nodes of the metrical tree, and the labeled leaf nodes are connected to unlabeled internal nodes;

set an initial default value of a score representing a probability of trade irregularity;

compare the metrical tree to a plurality of trigger trees stored in a lessons database, each trigger tree of the plurality of trigger trees representing a trade irregularity;

identify at least one trigger tree of the plurality of trigger trees indicating at least a closest match to the metrical tree using a nearest-neighbors algorithm, wherein using the nearest-neighbors algorithm further comprises:

computing distances between trees using match values, wherein the distance from a trigger tree of the plurality of trigger trees to the metrical tree is an average chance of finding a labeled leaf from the trigger tree in leaf nodes connected to unlabeled internal nodes of the metrical tree; and

identifying at least a trigger tree having a minimal distance to the metrical tree;

modify the score to represent an increased probability of trade irregularity as a function of the identification of the at least one trigger tree;

compare the score to a preconfigured threshold; and

execute a corresponding action by a review system as a result of the comparison.

22. The system of claim 21, wherein the transforming comprises:

representing trade activities in the set as notes and trade inactivity as rests in the musical piece representation, wherein each note represents a trade order in the set of trade activities;

placing each note representing a buy order on a treble clef in the musical piece representation;

placing each note representing a sell order on a bass clef in the musical piece representation;

setting a pitch of each note in the musical piece representation according to a price value and a length of time a corresponding trade order remains open;

setting a tempo of the musical piece representation according to an average speed at which trade orders were filled; and

setting a time signature of the musical piece representation according to a combination of trade instrument type, venue, and market conditions of the set of trade activities.

23. The system of claim 21, wherein the converting comprises:

converting each note in the musical piece representation to a leaf node in the metrical tree by the data processor, comprising:

setting, by the data processor, a level of the leaf node in the metrical tree according to a duration of a corresponding note in the musical piece representation;

ordering, by the data processor, a plurality of nodes in the metrical tree according to a time order of the notes in the musical piece representation;

parsing the metrical tree into plurality of tracks, wherein each track comprises a smallest discrete trading unit of the set of trade activities;

aggregating tracks into dimensions using a partially labelled tree comparison method, wherein each dimension is an organized group of multiple discrete trading units.

24. The system of claim 21, wherein each trigger tree of the plurality of trigger trees includes data representing a pattern selected from a group consisting of potential market manipulation, market change signal, synthetically created trades, and probability that the set of trade activities results in a market price move of one or more financial assets.

25. The system of claim 21, wherein comparing further comprises:

recursively performing a computation of an average of chances of finding a labelled leaf in a descendant of a non-labelled inner node in the metrical tree until no matching trigger tree is found describing trade activity having a time span matching a time span of the data representing the series of trade activities.

26. The system of claim 21, wherein the computing device is further configured to store the data representing the set of trade activities using time-lock cryptography.

27. A computer implemented method for processing and monitoring electronic trade data,

comprising:

receiving data representing a set of trade activities by a data processor;

transforming the data representing the set of trade activities to a musical piece representation by the data processor;

converting the musical piece representation to a metrical tree by the data processor, wherein notes of the musical piece representation are recorded in labeled leaf nodes of the metrical tree, and the labeled leaf nodes are connected to unlabeled internal nodes;

setting an initial default value of a score representing a probability of trade irregularity;

comparing the metrical tree to a plurality of trigger trees stored in a lessons database, each trigger tree of the plurality of trigger trees representing a trade irregularity;

identifying at least one trigger tree of the plurality of trigger trees indicating at least a closest match to the metrical tree using a nearest-neighbors algorithm, wherein using the nearest-neighbors algorithm further comprises:

computing distances between trees using match values, wherein the distance from a trigger tree of the plurality of trigger trees to the metrical tree is an average chance of finding a labeled leaf from the trigger tree in leaf nodes connected to unlabeled internal nodes of the metrical tree; and

identifying at least a trigger tree having a minimal distance to the metrical tree;

modifying the score to represent an increased probability of trade irregularity as a function of the identification of the at least one trigger tree;

comparing the score to a preconfigured threshold; and

executing a corresponding action by a review system as a result of the comparison.

28. The method of claim 27, wherein the transforming comprises:

representing trade activities in the set as notes and trade inactivity as rests in the musical piece representation, wherein each note represents a trade order in the set of trade activities;

placing each note representing a buy order on a treble clef in the musical piece representation;

placing each note representing a sell order on a bass clef in the musical piece representation;

setting a pitch of each note in the musical piece representation according to a price value and length of time a corresponding trade order remains open;

setting a tempo of the musical piece representation according to an average speed at which trade orders were filled; and

setting a time signature of the musical piece representation according to a combination of trade instrument type, venue, and market conditions of the set of trade activities.

29. The method of claim 27, wherein the converting comprises:

converting each note in the musical piece representation to a leaf node in the metrical tree by the data processor, comprising:

setting, by the data processor, a level of the leaf node in the metrical tree according to a duration of a corresponding note in the musical piece representation;

ordering, by the data processor, a plurality of nodes in the metrical tree according to a time order of the notes in the musical piece representation;

parsing the metrical tree into plurality of tracks, wherein each track comprises a smallest discrete trading unit of the set of trade activities;

aggregate tracks into dimensions using a partially labelled tree comparison method, wherein each dimension is an organized group of multiple discrete trading units.

30. The method of claim 27, wherein each trigger tree of the plurality of trigger trees includes data representing a pattern selected from a group consisting of potential market manipulation, market change signal, synthetically created trades, and probability that the set of trade activities results in a market price move of one or more financial assets.

31. The method of claim 27, wherein comparing further comprises:

recursively performing a computation of an average of chances of finding a labelled leaf in a descendant of a non-labelled inner node in the metrical tree until no matching is found describing trade activity having a time span matching a time span of the data representing the series of trade activities.

32. The method of claim 27, further comprising storing the data representing the set of trade activities using time-lock cryptography.

33. A non-transitory computer readable medium comprising computer readable program code embodied therein, the program instructions executable by at least one processor to cause the at least one processor to perform operations comprising:

receiving data representing a set of trade activities by a data processor;

transforming the data representing the set of trade activities to a musical piece representation by the data processor;

converting the musical piece representation to a metrical tree by the data processor, wherein notes of the musical piece representation are recorded in labeled leaf nodes of the metrical tree, and the labeled leaf nodes are connected to unlabeled internal nodes;

setting an initial default value of a score representing a probability of trade irregularity;

comparing the metrical tree to a plurality of trigger trees stored in a lessons database, each trigger tree of the plurality of trigger trees representing a trade irregularity;

identifying at least one trigger tree of the plurality of trigger trees indicating at least a closest match to the metrical tree using a nearest-neighbors algorithm, wherein using the nearest-neighbors algorithm further comprises:

computing distances between trees using match values, wherein the distance from a trigger tree of the plurality of trigger trees to the metrical tree is an average chance of finding a labeled leaf from the trigger tree in leaf nodes connected to unlabeled internal nodes of the metrical tree; and

identifying at least a trigger tree having a minimal distance to the metrical tree;

modifying the score to represent an increased probability of trade irregularity as a function of the identification of the at least one trigger tree;

comparing the score to a preconfigured threshold; and

executing a corresponding action by a review system as a result of the comparison.

34. The medium of claim 33, wherein the transforming comprises:

representing trade activities in the set as notes and trade inactivity as rests in the musical piece representation, wherein each note represents a trade order in the set of trade activities;

placing each note representing a buy order on a treble clef in the musical piece representation;

placing each note representing a sell order on a bass clef in the musical piece representation;

setting a pitch of each note in the musical piece representation according to a price value and length of time a corresponding trade order remains open;

setting a tempo of the musical piece representation according to an average speed at which trade orders were filled; and

setting a time signature of the musical piece representation according to a combination of trade instrument type, venue, and market conditions of the set of trade activities.

35. The medium of claim 33, wherein the converting comprises:

converting each note in the musical piece representation to a leaf node in the metrical tree by the data processor, comprising:

setting, by the data processor, a level of the leaf node in the metrical tree according to a duration of a corresponding note in the musical piece representation;

ordering, by the data processor, a plurality of nodes in the metrical tree according to a time order of the notes in the musical piece representation;

parsing the metrical tree into plurality of tracks, wherein each track comprises a smallest discrete trading unit of the set of trade activities;

aggregating tracks into dimensions using a partially labelled tree comparison method, wherein each dimension is an organized group of multiple discrete trading units.

36. The medium of claim 33, wherein each trigger tree of the plurality of trigger trees includes data representing a pattern selected from a group consisting of potential market manipulation, market change signal, synthetically created trades, and probability that the set of trade activities results in a market price move of one or more financial assets.

37. The medium of claim 33, wherein the comparing further comprises:

recursively performing a computation of an average of chances of finding a labelled leaf in a descendant of a non-labelled inner node in the metrical tree until no matching is found describing trade activity having a time span matching a time span of the data representing the series of trade activities.

38. The medium of claim 33, further configured to store the data representing the set of trade activities using time-lock cryptography.