CLAIMS

1. A method of classifying a file locally at a computer, comprising:

extracting metadata from the file;

assigning a classification for the file by applying a machine learning model that was trained to classify files based on the metadata; wherein the machine learning model is provided by a remote server to classify files locally at the computer;

determining a confidence level representing an accuracy of the classification;

wherein if the confidence level is below a threshold value analyzing the content of the file to assign a classification for the file based on the content;

storing the assigned file classification; wherein the classification is stored as metadata in the file; and

permitting or preventing access to the file by a user of the computer responsive to the assigned classification;

wherein at least one classification requires a second factor authentication by the user, wherein the user is required to enter a onetime code received in an SMS or Email in addition to entering a password.

2. The method of claim 1, wherein the metadata is enriched with information related to file creator metadata or file editor metadata, including risk levels assigned to them.

3. The method of claim 1, wherein the machine learning model is generated based on a set of files and their metadata, wherein the set of files were classified based on their content.

4. The method of claim 1, wherein the confidence level is determined based on a quality of the metadata.

5. The method of claim 1, wherein the classification is also stored in directory information related to the file.

6. The method of claim 1, wherein the classification is also stored in an organizational database accessible over an organizational network.

7. The method of claim 1, wherein the metadata of the file includes classifications of neighbor files.

8. The method of claim 1, wherein the metadata is enriched with information related to file storage metadata, including location ownership or a security level associated with the file.

9. A system for classifying a file locally at a computer, comprising:

the computer comprising a processor and memory;

a program for executing on the computer, wherein the program is configured to perform the following when executed by the computer:

extracting metadata from the file;

assigning a classification for the file by applying a machine learning model that was trained to classify files based on the metadata; wherein the machine learning model is provided by a remote server to classify files locally at the computer;

determining a confidence level representing an accuracy of the classification;

wherein if the confidence level is below a threshold value analyzing the content of the file to assign a classification for the file based on the content;

storing the assigned file classification; wherein the classification is stored as metadata in the file; and

wherein the assigned classification is used to permit or prevent access to the file by a user of the computer;

wherein at least one classification requires a second factor authentication by the user, wherein the user is required to enter a onetime code received in an SMS or Email in addition to entering a password.

10. The system of claim 9, wherein the metadata is enriched with information related to file creator metadata or file editor metadata, including risk levels assigned to them.

11. The system of claim 9, wherein the machine learning model is generated based on a set of files and their metadata, wherein the set of files were classified based on their content.

12. The system of claim 9, wherein the confidence level is determined based on a quality of the metadata.

13. The system of claim 9, wherein the classification is also stored in directory information related to the file.

14. The system of claim 9, wherein the classification is also stored in an organizational database accessible over an organizational network.

15. The system of claim 9, wherein the metadata of the file includes classifications of neighbor files.

16. The system of claim 9, wherein the metadata is enriched with information related to file storage metadata, including location ownership or a security level associated with the file.

17. A non-transitory computer readable medium comprising an executable program configured to perform a method of claim 1.