

What is claimed is:

1. An access right estimation apparatus comprising:
a memory; and

at least one hardware processor configured to:

- extract at least one first component of a plurality of first components from a first object which forms a first document, a first access right being set up for the first document;

- associate the extracted first component with first access right information which indicates a user who has access to the first component based on the first access right which is set up for the first document;

- estimate a second access right that has yet to be set up for a second document, which includes at least one second component of a plurality of second components extracted from a second object that forms the second document, and estimate the second access right based on the at least one second component and the first access right information which is associated with the first component,

- estimate importance levels of the second components extracted from the second object that forms the second document,

estimate the second access right to be set up for the second document using a first sum of the estimated importance levels of the second components, wherein each of the first components of the first document is a first combination of words, and each of the second components of the second document is a second combination of words,
determine target-user access rights of a target user to the second components based on the first access right information,
estimate whether the target-user access rights of the target user is to be set up for the second document by acquiring a ratio of a second sum of importance levels of the second components to which the target user has the target-user access rights to the first sum of the estimated importance levels of the second components, and
notify the target user of the lack of the second access rights to the at least one second component of the second document when it is estimated that the target user lacks the target-user access rights to the second document.

2. The access right estimation apparatus according to claim 1, wherein the first and second objects include each page and a drawing of a document.

3. The access right estimation apparatus according to claim 1,

wherein the hardware processor extracts the first and second components from the first and second objects through morphological analysis.

4. The access right estimation apparatus according to claim 1,

wherein the hardware processor performs machine learning using the first components of the first document.

5. The access right estimation apparatus according to claim 1, wherein the hardware processor further estimates the first access right to be set up for the first document, and notifies a specified user of the first access right of the specified user having yet to be set up for the first document when it is estimated that the first access right of the specified user is to be newly set up for the first document.

6. The access right estimation apparatus according to claim 1, wherein the hardware processor further estimates the first access right to be set up for the first document, and sends a warning when it is estimated that the first access right of a specified user is yet to be set up for the first document.

7. The access right estimation apparatus according to claim 1, wherein the hardware processor, when one of the second components failing to coincide with any one of the first components, (1) excludes said one of the second components and estimates the second access right to the second document based on other second components or (2) terminates the estimation processing.

8. The access right estimation apparatus according to claim 7, wherein the hardware processor, when one of the second components fails to coincide with any one of the first components, notifies a user that a new access right is to be set up for the second document.

9. A non-transitory computer readable medium storing an access right estimation program causing a computer to function as: an access right estimation program causing a computer to instruct at least one hardware processor to:

extract at least one first component of a plurality of first components from a first object which forms a first document, a first access right being set up for the first document;

associate the extracted first component with first access right information which indicates a user who has access to the first component based on the first access right which is set up for the first document;

- estimate a second access right that has yet to be set up for a second document, which includes at least one second component of a plurality of second components extracted from a second object that forms the second document;
- estimate the second access right based on the at least one second component and the first access right information which is associated with the first component;
- estimate importance levels of the second components extracted from the second object that forms the second document;
- estimate the second access right to be set up for the second document using a first sum of the estimated importance levels of the second components, wherein each of the first components of the first document is a first combination of words, and each of the second components of the second document is a second combination of words;
- determine target-user access rights of a target user to the second components based on the first access right information;
- estimate whether the target-user access rights of the target user is to be set up for the second document by acquiring a ratio of a second sum of importance levels of the second components to which the target user has

the target-user access rights to the first sum of the estimated importance levels of the second components;
and

notify the target user of the lack of the second access rights to the at least one second component of the second document when it is estimated that the target user lacks the target-user access rights to the second document.