EXHIBIT 2

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(12) **United States Patent**
Cox

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(45) **Date of Patent:**   *Jun. 19, 2012

(54) **IDENTIFYING WORKS, USING A SUB-LINEAR TIME SEARCH, SUCH AS AN APPROXIMATE NEAREST NEIGHBOR SEARCH, FOR INITIATING A WORK-BASED ACTION, SUCH AS AN ACTION ON THE INTERNET**

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This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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(60) Provisional application No. 60/232,618, filed on Sep. 14, 2000.

(51) **Int. Cl.**
     H04N 7/173   (2011.01)
(52) **U.S. Cl.** **725/110**
(58) **Field of Classification Search** .... None
     See application file for complete search history.

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(57)   **ABSTRACT**

A media work may be associated with an action by (a) extracting features from the media work, (b) determining an identification of the media work, based on the features extracted, using a sub-linear time search, such as an approximate nearest neighbor search for example, and (c) determining an action based on the identification of the media work determined. The media work may be an audio work. The features extracted from the work may include (A) a frequency decomposition of a signal of the audio work, (B) information samples of the audio work, (C) average intensities of sampled windows of the audio work, and/or (D) information from frequencies of the audio work.

40 Claims, 10 Drawing Sheets
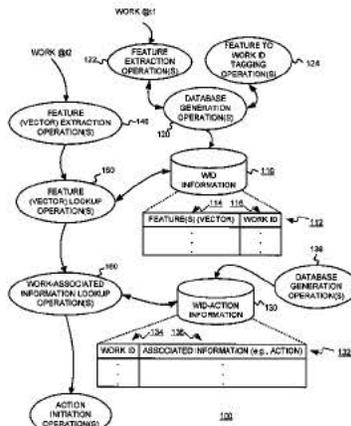
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