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Blockchain based rating and review platform

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Blockchain based rating and review platform

ABSTRACT

This disclosure describes a blockchain based rating and review platform for web content. The platform provides a distributed and open access framework for ratings and reviews. With user permission, data corresponding to the rating, review, evaluation, etc., of an item (article, picture, sound clip, etc.) of web content by a user is stored in a blockchain record. A single blockchain record can contain one or more review actions. The blockchain record serves as a trusted ledger of reviews and ensures that the rating records are immutable. Rating data retrieved from the platform can be utilized for analytics and to assist users in their choice of web content.

KEYWORDS

- Blockchain
- Content rating
- Fact checking
- User reviews

BACKGROUND

There is high variability in the quality of available web content. Content rating and content characterization can assist users greatly in choosing content to be viewed. Content characterization can also have different parameters for different use cases and applications. For example, content characterization can include whether the content is factual/non-factual, safe for all viewers/potentially unsafe for certain viewers, original/non-original, etc. Currently, there is a lack of a unified or consistent way to determine content quality, e.g., of online content. Valuable user time is often wasted on poor quality or inaccurate content.

Current fact-checking techniques have inadequate coverage of web content. Fact-checking sources can provide inconsistent results. Besides, users have to individually utilize fact-checking sources since there is limited integration of fact-checking services with websites or social applications. Further, users may not always trust fact checking results since users do not know who performed the fact checking and whether the results are trustworthy. This can also provide a challenge for online content and search providers in providing content, e.g., search results, that is trustworthy.

DESCRIPTION

This disclosure describes a blockchain based platform for providing, storing, and distributing user reviews and ratings of online content. The platform provides a distributed and open access framework for ratings, reviews, evaluation, etc., and is based on blockchain technology. Individual users and/or organizations can contribute to the platform. Each rating, review, or evaluation of an item such as an article, picture, sound clip, etc. of content by a user is considered to be a review action and is stored in a blockchain record. A single blockchain record can contain one or more review actions of different users. The blockchain records are configured to be obtained and analyzed by users and organizations. The records are generated and stored upon permission from users, e.g., users that provide content, users that provide reviews, etc.

The stored records corresponding to each review action include information that enables identification of the rater/reviewer (based on permissions provided by the user, and without revealing personally identifiable information), the rating provided by the user, the source details of the rated content, etc.
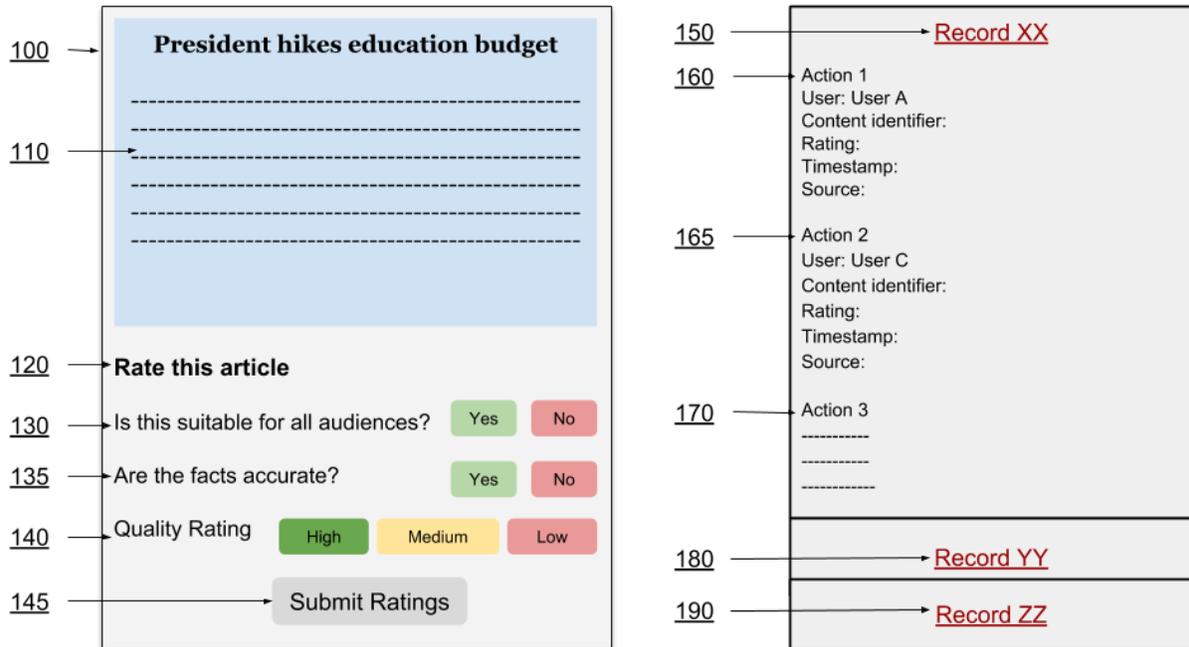
Fig. 1: User reviews of content are stored in a blockchain record

Fig. 1 illustrates an example of the functioning of the rating platform, per techniques of this disclosure. A user interface (100) displays content (110) to a user. The user interface includes options for the user to provide ratings or reviews (120) for the content. In this example, the interface provides for the user to review the article as to whether the article is suitable for all audiences (130) and factual accuracy (135), and to provide a quality rating (140).

Upon submission (145) of the review by the user, a blockchain record (150) is created based on the user review. With permission of the submitting user, the blockchain record stores details of the user review action (160) such as the identity (or pseudonym) of the user (rater), identifier of the rated content, the ratings provided, etc.

The rater information includes a global rater identifier, a rater level at the time of rating that indicates whether the rater is a certified or verified user at the time of rating, and additional rater information. The rating information is optionally encrypted and includes information regarding the rating time, rating location, factual status of the content, safety or appropriateness

of the content for different audiences, originality of the rated content, comments and additional details, etc.

The content identifier stores information about the rated content such as the content URL, an abstract of the content, a snippet or extract of the content, hash code of the content, a snapshot of the content creator/author/owner, etc. In the illustrated example, the blockchain record contains a record of the review of action of multiple users (160, 165, and 170), and is connected to other blockchain records (180, 190).

The submission of user ratings/reviews and storage in the blockchain is integrated into different software applications. A rating option is provided in social media applications (apps), in addition to other review options provided in the interface. When a permitting user rates an article in a social media app, the app retrieves a user identifier from the rating platform, generates rating time/location, content information, combines the data with the rating provided by the user, and transmits the information to the rating platform. A new rater id can be created for a user where a user rater id is missing or does not exist.

The review/rating platform can also collate the record based on direct input from a user. A rate/review button allows a user to submit a review/rating directly. Details of the rated content, the rater, the rating, etc. are assembled by the rating platform to create the blockchain record. Trustworthy raters are recognized by the rating platform, e.g., through the award of badges to such users, and an expert status recognition provided to domain expert users, e.g., as determined from publicly available sources.

The rating platform also provides different levels of grades for users. Further, the rating platform processes and aggregates ratings for each item of content. The aggregated ratings are retrieved by users that view the content. The ratings are categorized by the rating platform into

categories such as certified user ratings, expert ratings, all user ratings, etc. The ratings can be displayed by website/ content owners and social platforms. For example, a content provider or author can present the reviews, particularly those from certified/expert raters to enhance credibility. Users are incentivized to provide accurate ratings/reviews. The rating platform can also serve as a fact-checking resource.

Techniques disclosed herein can be utilized to set up a standard and open way to collect and present ratings without limiting reach to a selected app or organization. Various applications and plugins can be developed and utilized to retrieve/summarize the information for presentation to users. The use of blockchain technology ensures that the rating records are immutable, and also ensures the verifiability and repeatability of analyses based on the rating data.

Further to the descriptions above, a user may be provided with controls allowing the user to make an election as to both if and when systems, programs or features described herein may enable collection of user information (e.g., information about a user's social network, social actions or activities, profession, a user's preferences, or a user's current location), and if the user is sent content or communications from a server. In addition, certain data may be treated in one or more ways before it is stored or used, so that personally identifiable information is removed. For example, a user's identity may be treated so that no personally identifiable information can be determined for the user, or a user's geographic location may be generalized where location information is obtained (such as to a city, ZIP code, or state level), so that a particular location of a user cannot be determined. Thus, the user may have control over what information is collected about the user, how that information is used, and what information is provided to the user.

CONCLUSION

This disclosure describes a blockchain based rating and review platform for web content. The platform provides a distributed and open access framework for ratings and reviews. With user permission, data corresponding to the rating, review, evaluation, etc., of an item (article, picture, sound clip, etc.) of web content by a user is stored in a blockchain record. The blockchain record serves as a trusted ledger of reviews and ensures that the rating records are immutable. Rating data retrieved from the platform can be utilized for analytics and to assist users in their choice of web content.