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Restaurant ratings based on tipping patterns

ABSTRACT

The disclosure describes techniques to ascertain the quality of a restaurant based on the tipping behavior of patrons. Electronic payment data for payments made using a user device is obtained with user permission. The data is analyzed to determine user satisfaction by comparison with prior tipping behavior. For example, if the user tipped more than usual, it is determined that customer satisfaction was high for that restaurant. When users permit, data for multiple user payments is aggregated to determine restaurant ratings.

KEYWORDS

- electronic payment
- restaurant review
- restaurant rating
- tipping
- business rating
- customer satisfaction

BACKGROUND

Users provide their opinions on businesses on various forums that publish reviews and ratings. To build a profile for a business, such forums require users to submit a review and/or rating for the business. However, many patrons that visit a business do not submit reviews. Thus, online ratings for businesses may not adequately reflect the quality of the business, e.g., because of limited number of reviews, types of reviewers that submit reviews, etc.

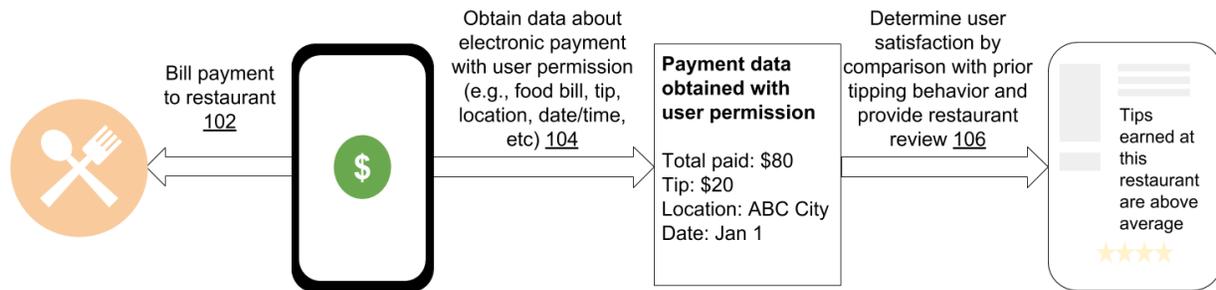
DESCRIPTION**Fig. 1: Scoring restaurants based on payment data**

Fig. 1 illustrates an example process in which a business profile is built by obtaining user payment data with user permission.

1. The user makes an electronic payment e.g., that includes the bill and a tip, at an establishment that accepts a tip, e.g., restaurant (102). The payment is made with a user device capable of electronic payments, e.g., smartphone, tablet, smartwatch, etc. or via an electronic payment or wallet service. In the illustrated example, the user has paid the restaurant for the bill amount of \$80 and has left a tip of \$20. With user permission, payment data (104) (e.g., bill amount, tip, location, date/time, etc.) are obtained.
2. User satisfaction is determined by comparison with prior tipping behavior (106). For example, the ratio of bill amount and the tip is compared to past tipping behavior. If the user tipped more than usual, it is determined that customer satisfaction was high. In the example illustrated in Fig. 1, the user tipped 25% which may be higher than a usual tip of 15% for the user.
3. Based on the data, a business profile is constructed for establishments for which sufficient number of reviews have not been submitted. The profile includes a score or text indicator, e.g., “Tips earned at this restaurant are above average,” determined based on

multiple observations of higher-than-normal tipping behavior from users. Further, a high rating may be assigned to the restaurant based on the correlation between higher-than-normal tips and overall user satisfaction at the restaurant.

With user permission, electronic payment data can also be utilized to determine other factors, e.g., client profiles for a restaurant or other business. Such data can be utilized to provide suggestions to users.

The analysis described above can be performed to exclude high tips where average tips are all the same for that restaurant and clearly above a normal tipping rate for the restaurant, e.g., 15% in the United States. Such high tips are indicative of factors such as a high-end restaurant, a large party with an auto-gratuity added, the tip is paid with a business credit card where the tipper is likely to tip more for a business dinner or be more laissez-faire about the tip amount, etc.

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

The disclosure describes techniques to ascertain the quality of a restaurant based on the tipping behavior of patrons. Electronic payment data for payments made using a user device is obtained with user permission. The data is analyzed to determine user satisfaction by comparison with prior tipping behavior. For example, if the user tipped more than usual, it is determined that customer satisfaction was high for that restaurant. When users permit, data for multiple user payments is aggregated to determine restaurant ratings.