# Technical Disclosure Commons

September 06, 2019

# Ads that verify user age

John Nicholas Dukellis

Derek Butcher

Follow this and additional works at: https://www.tdcommons.org/dpubs_series

# Ads that verify user age

## ABSTRACT

A concern of online ad networks is the suitability of an advertisement to particular viewers, e.g., ensuring that ads are age-appropriate. Age gates, in which a user self-declares age, can be easily fooled. This disclosure describes ads that attempt to verify age by requesting that the user to respond to questions, the answers to which are typically known only to someone that meets a particular threshold age or is in a specific age range.

## KEYWORDS

- Age verification
- Age gate
- Ad suitability
- Online privacy
- Online advertising

## BACKGROUND

A concern of online ad networks is the suitability of an advertisement to particular viewers, e.g., ensuring that ads are age-appropriate. Ad networks and publishers want to be compliant with laws such as Children's Online Privacy Protection Act (COPPA) by restricting unsuitable ads from being shown to children. On the other hand, it is easily possibly for any viewer to pretend to be an adult, e.g., by providing false answers to age gates that require users to self-declare age or birthdate.
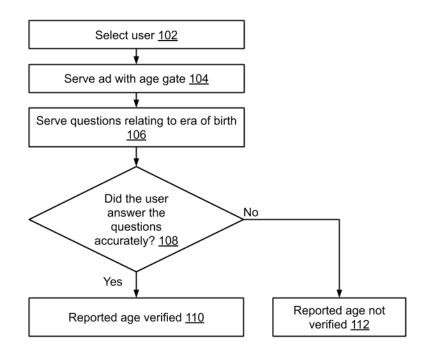
DESCRIPTION



**Fig. 1: Ads that verify user age**

Fig. 1 illustrates online ads that perform age verification, per techniques of this disclosure. A user, e.g., an ad viewer, is selected (102) for verification of age. For example, the user can be selected randomly, based on a suspicion of age fraud, or based on a request by an ad network, an app, or a publisher. An ad network, app, or publisher may request age verification for various reasons such as to protect a brand, maintain regulatory compliance (e.g., COPPA), maintain age rating in an online store, etc. The ad is served along with an age gate (104) that requests the user to self-declare their age or birth date. Age gates are common in applications, e.g., mobile apps, or other apps, that are installed or available on a user device such as a phone, tablet, laptop, etc. Thus, if the advertisement is to be served in an app that already has access to user age, then the age can simply be passed to the ad by the app, if permitted by the user.

Based on the self-declared age, one or more questions are shown to the user that relate to the era of the user's claimed birth. Answers to such questions are typically well known to users

of the claimed age, but are relatively unknown to people outside the vicinity of the claimed age. For example, for a user who claims to be born in 1977 in the United States, a cartoon from 1985 can be shown and a question posed as to who the cartoon character is. Questions may target specific age ranges to determine if the user falls under age categories such as general (G), parental guidance (PG), teen, mature, etc.

If the answers to the questions are correct (108), then the user is determined to have reported their age accurately (110). If the answers to the questions are incorrect, then the user is determined to have reported their age inaccurately (112). The age-verification procedure can be repeated to rule out the possibility of error. With user permission, a profile of the user can be generated and used in the future to determine the level of ads to be presented to the user. Reliable age verification can reduce instances of the advertising network serving unsuitable ads to viewers and can enable an advertising network to serve more profitable ads that are otherwise held back due to age verification difficulties.

While the foregoing discussion refers to age verification to present online advertising presented within apps or websites, it is possible to use the age verification techniques in other suitable contexts. The questions used can be tailored based on available user information, e.g., claimed age and location, and also on other user-permitted factors.

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 ads that attempt to verify age by requesting the user to respond to questions, the answers to which are typically known only to someone of a specific age range.

REFERENCES

1.  "A Simpler and Friendlier Age Verification Page" available online at

    https://uxmovement.com/forms/simpler-and-friendlier-age-verification-page/, accessed

    19 Aug 2019.