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Single-click ad-catching on TV and at the movies

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Single-click ad-catching on TV and at the movies

ABSTRACT

It is today possible for a user with an appropriate mobile device application to catch a television ad, e.g., to make a purchase taking advantage of an offer in an ad that just aired. However, such ad-catching is still generally a multistep procedure with some friction. It is often the case that by the time a user catches a short-formatted ad (of a duration between 15-30s) with their ad-catching application, the time window for the offer has expired. This disclosure describes techniques that enable a user to catch an ad aired on television or in a movie theater with a single click of a TV remote or via a smartphone or other device.

KEYWORDS

- Ad-catching
- Single-click operation
- Single-touch operation
- Viewer engagement
- Smart TV
- Ad fingerprinting
- Ad binding
- Ad bidding
- Ad scraping

BACKGROUND

It is today possible for a user with an appropriate mobile device application to catch a television ad, e.g., to make a purchase taking advantage of an offer in an ad that just aired. However, such ad-catching is still generally a multistep procedure with some friction. For

example, to catch a TV ad, a user has to have their mobile device handy, with an open ad-catching application. The user has to know which ads have offers, which, compounded by the unpredictability in ad airing, requires the user to have a quick reaction time. Ad catcher applications typically listen for ads and attempt to recognize offers included therein; given ambient noise conditions, ad or offer discovery is currently not an entirely reliable process. It is often the case that by the time a user catches a short-formatted ad (of a duration between 15-30s) with their ad-catching application, the time window for the offer has expired.

DESCRIPTION

This disclosure describes techniques that enable a user to catch an advertisement that airs on smart TVs, on traditional TVs, in movie theaters, etc.

Ad-catching in markets with smart TVs

In markets with smart TVs, e.g., TVs (or set-top boxes) connected to the internet, this disclosure describes techniques to catch TV ads on time and with a single click via remote. Per the techniques, the user links the smart TV with a payment application. Across multiple TV channels, ads with offers are detected on the connected device by matching decoded TV audio with a dynamic repository of ad fingerprints.

Upon detecting an ad with an offer, a call-to-action icon is displayed for the duration of the ad. A single OK/cancel click on TV remote enables the user to either catch the ad or ignore it. If the user catches the ad and the offer therein, the transaction can be completed via the linked payment app. In this manner, a sale cycle via TV can be initiated during an ad without interrupting the TV viewing experience. In some examples, a sales lead can be generated by a clickable TV ad, e.g., a single click of a TV remote can set in motion a process that culminates in a call to the viewer by a sales representative of the advertiser. The techniques enable offers to be

anchored to portions of (non-ad) content as well. The single-click ad-catching experience can also be gamified to improve viewer engagement. An example is interactive quizzes that display numeric options that are clickable by a TV remote. Other examples include ad-based opinion polls, interactive options, group-buying options, etc.
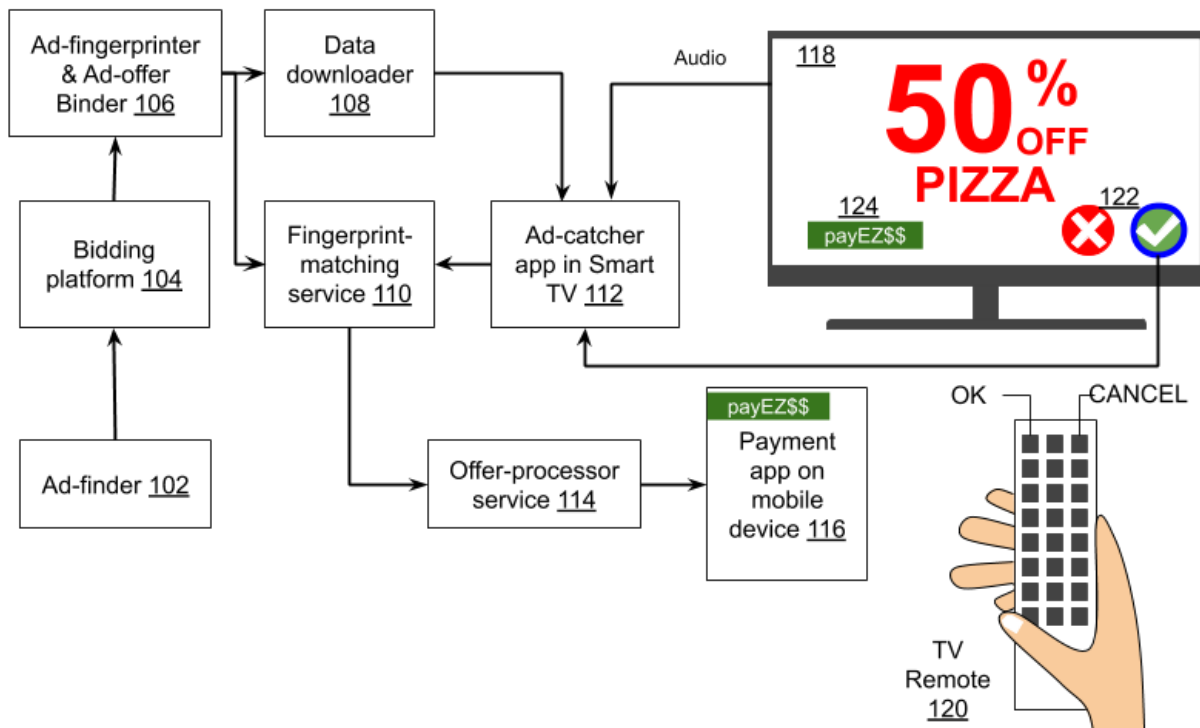
Fig. 1: One-click ad-catching for smart TVs

Fig. 1 illustrates one-click ad-catching for smart TVs, per techniques of this disclosure. Popular, repeating ads are scraped (found) from TV channels using an ad-finder (102). A bidding platform (104) offers ads to partners and third-party bidders (106). Third-party bidders can include, e.g., local or national retailers or e-commerce sites making offers and buying ads for products they sell on their platforms. After pre-processing, the ad content is fingerprinted (106). Partners and advertisers bind an offer to own ads or through bids for scraped TV ads.

A smart TV (118) runs an ad-catcher app (112). A data downloader (108) downloads ad-fingerprints to the ad-catcher. The audio channel of the TV is sent to the ad-catcher (using, e.g.,

HDMI or pathways internal to the TV). When a fingerprinted ad appears on the smart TV, the ad-catcher catches it. Since the ad-catcher runs on the smart TV, it can catch a clean, audio version of the ad, e.g., free of environmental noise, and is reliable.

The ad that is caught by the ad catcher is matched with a repository of ad fingerprints by a fingerprint matching service (110) to determine matching ads. An offer-processor service (114) determines current offers, or parameters thereof, e.g., validity time, made on matching ads by advertisers and partners. The payment app is automatically activated on a smartphone that is linked to the smart TV (116). The linking of the smartphone and the smart TV can be done, for example, by having the same user log in to both smartphone and smart TV.

A call-to-action button, e.g., an OK/cancel button, is shown on the smart TV (122). A logo of the payment app (124) can also be shown on the smart TV. The user can ignore the ad and offer by simply doing nothing or by a single touch of a cancel button on the TV remote (120). The user can also accept the offer in the ad by a single touch of an OK button of the TV remote. The user action is sent to the ad-catcher app for processing. If the user accepts the ad, matching information is sent to offer-and-payment processing servers, and the transaction is completed. If the payment app has any additional reward, then that reward is processed for eligible users and pushed into a rewards stream of the user account.

In this manner, in markets with smart TVs (or other devices such as internet-connected set-top boxes), third-party partners and advertisers, e.g., retailers, can bid for and make offers via TV ads that a user can catch with a single touch of the remote. The payment application and call-to-action buttons are made visible on the smart TV. The ad catcher app is hosted on the smart TV and catches ads quickly and reliably. Even small-duration ads, e.g., less than ten seconds, are immediately actionable by the user with minimal friction. The techniques offer advertisers a finer

control over offer locations, a greater number of downloadable ads, the possibility of interactive

content, e.g., quiz-style advertisements, etc., and can lead to a high conversion rate and repeat

customers (sticky users).

Ad-catching in markets with traditional TVs not connected to the internet
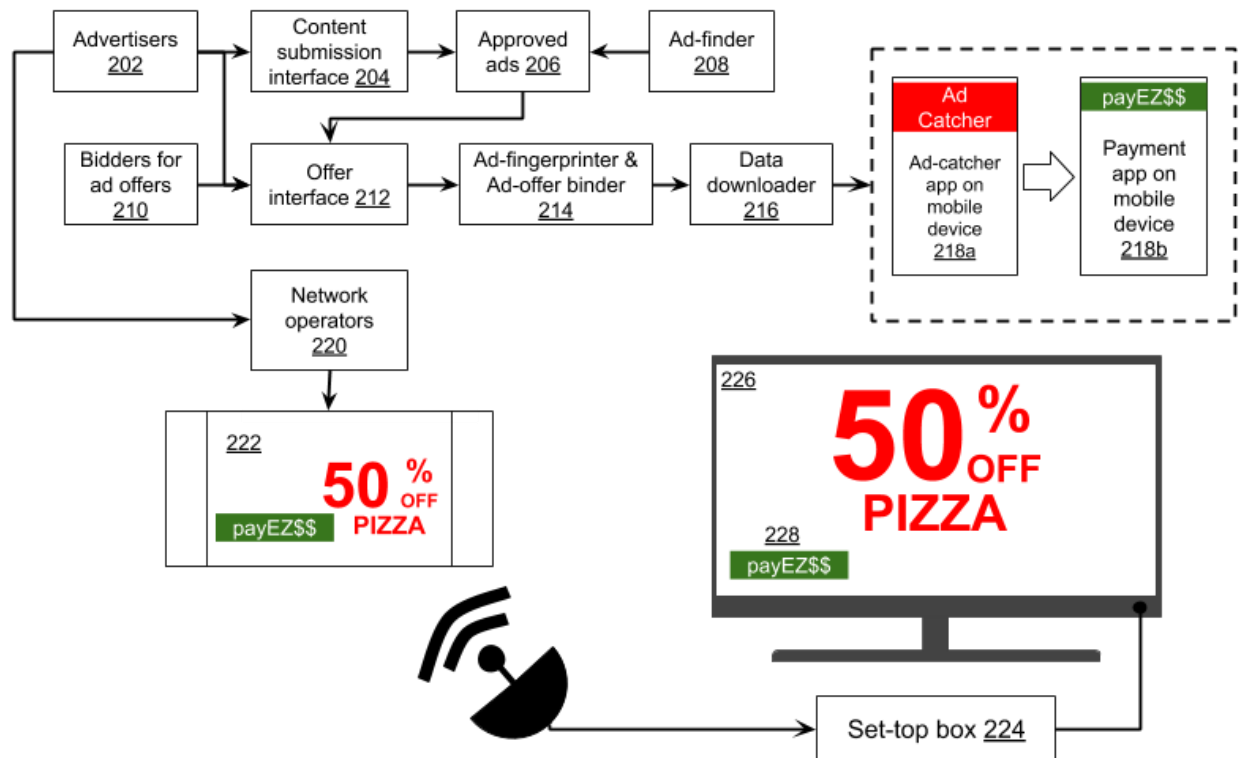
Fig. 2: One-click ad-catching for traditional TVs

Fig. 2 illustrates one-click ad-catching for traditional TVs, e.g., TVs and set-top boxes

that are not internet-enabled. Advertisers (202), partners and third-party bidders (210) bid for ads

on an offers interface (212). Alternatively, advertisers submit their content to a content

submission interface (204). Approved ads (206) are submitted to the offers interface. Still

alternately, an ad-finder (208) scrapes (finds) TV ads from TV channels and ads that are thus

found and approved are submitted to the offers interface. The offers interface sends ads to an ad

fingerprinter and ad-offer binder (214), which, after pre-processing, fingerprints the ads and

binds ads and their offers to advertisers. A data downloader (216) downloads ad fingerprints to an ad-catcher app (218a) that is hosted (with user permission) on a user's mobile device.

Advertisers partner with network operators (220) to send their ads to set-top boxes (224) via a television signal. The network operator or advertiser can include within the television signal (222) a logo of a payment app. The television signal is screened on a traditional TV (226), which also displays the logo of the payment app (228). When an ad airs, the ad-catcher on the mobile device captures the ad by recognizing its fingerprint. The payment app automatically opens on the mobile device (218b). The user can accept the ad offer by touching a single button on the payment app.

In this manner, in markets with traditional TVs, e.g., TVs and set-top boxes that aren't internet-enabled, TV ads are embedded with the payment app logo by advertisers or network operators. When the user unlocks their device and activates their ad-catcher and payment apps, they can catch ads and their offers by a single touch of their mobile device. If a merchant, e.g., a retailer, has an app on the same device, then offers on the merchant app can be presented along with offers on caught TV ads.

Ad-catching in movie theaters

Visitors to movie theaters can also be provided features catch ads using techniques similar to the above-described techniques for ad-catching in traditional TV sets. When airing an ad in a movie theater, an advertiser may wish to restrict in-ad offers to individuals who actually witnessed the ad at the exact time and location of the airing of the ad. This can be ensured by fulfilling an ad offer upon its verification.

For purposes of verifying a user's claim of an in-ad offer, theater operators can partner with the ad network in various ways, e.g., by uploading to the offer-processing server the exact

play-time of the ad; by providing a clean fingerprint of aired ads using devices that faithfully record the audio playout of the theatre; etc. With user permission, an ad can be verified as being captured at the exact time and location it aired by presenting it to the offer-processing server alongside user-permitted metadata such as the location of the capturing device; showtime; ticketing information (obtained using, e.g., a linked payment application); etc.

Enabling ad-catching at movie theaters, per the techniques of this disclosure, is advantageous for reasons such as:

- Greater viewer engagement and greater revenue for the theater operator and for allied merchants, e.g., retailers or advertisers in the region or mall where the theater is located.

- The practice of viewers arriving late to skip ads and view just the featured content works against advertisers and their investment in theater ads. The techniques described herein provide an incentive for audiences to come in earlier to witness ads to take advantage of in-ad offers that are hyperlocal and expire within a relatively short timeframe. In addition, the theater operator and advertising merchants can offer loyalty or early-bird in-ad offers, e.g., ads that have better offers earlier in the session.

- Theater operators can design ads and in-ad offers to achieve certain marketing goals, for example, they can show theater (house) offers, e.g., food and beverage offers, earlier in the session to incentivize viewers to arrive early, while showing merchant offers after a threshold number of people are seated.

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 techniques that enable a user to catch an ad, e.g., to make a purchase taking advantage of an offer in an ad that just aired on television or in a movie theater, with just a single click of a TV remote or via a smartphone or other device.