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Content provisioning based on aesthetic qualities

ABSTRACT

A portion of content rendered on many websites is often provided by third parties, different from the website provider, which leads to a mix of different content styles. Examples of third-party content include advertisements, social media widgets, etc. In some cases, e.g., native advertising, third-party content is stylized to better fit the place of display within a webpage. However, many advertisers stipulate that their ads be displayed only if not modified substantially, or not modified at all. On the other hand, publishers try to achieve aesthetic uniformity across third-party and native content on their websites. This mismatch between publisher and advertiser preferences leads to the advertiser reaching a smaller audience and the publisher having unsold inventory, translating to lower ad revenue.

This disclosure presents techniques that enable publishers and advertisers to match the aesthetics of their respective content. Aesthetically appropriate ads are displayed on publisher websites without necessitating modification of the ad as submitted by the advertiser.

KEYWORDS

- Third-party content
- Native advertising
- Image ads
- HTML5
- Aesthetic match
- Look-and-feel
- Advertisement revenue

BACKGROUND

Websites often feature content, e.g., advertisements, social media widgets, video embeds, stock images, etc., that are provided by third parties, leading potentially to a mix of different styles of content on the same page. Website publishers often stipulate that third-party content displayed on their website match the look-and-feel or aesthetic of the website.

In some cases, such as native advertising or other content that can be stylized by a website publisher, the content is adjusted to better fit the place of display. However, stylization of third-party content requires the publisher to provide configuration information, and in any case, applies only to a small subset of content that is provided as individual assets. For other content such as HTML5 or image ads which are provided to be served as is, or when choosing the screenshot for a video, modification is either impractical or the publisher has no control over its rendering. Not being able to control, or not knowing in advance the look-and-feel of third-party content, is a matter of concern to website publishers.

On the other hand, advertisers increasingly stipulate that their ads be displayed only if the ads are not modified substantially for display, or not modified at all. Thus, there is a mismatch between publishers asserting control over the look-and-feel of third-party content and advertisers stipulating only minor modifications, if at all. The result is that publishers have unsold inventory, e.g., generate less ad revenue, while advertisers reach smaller audiences.

DESCRIPTION

This disclosure provides techniques for a website publisher to specify and select third-party content that matches the style of their website content in accordance with certain aesthetic criteria.

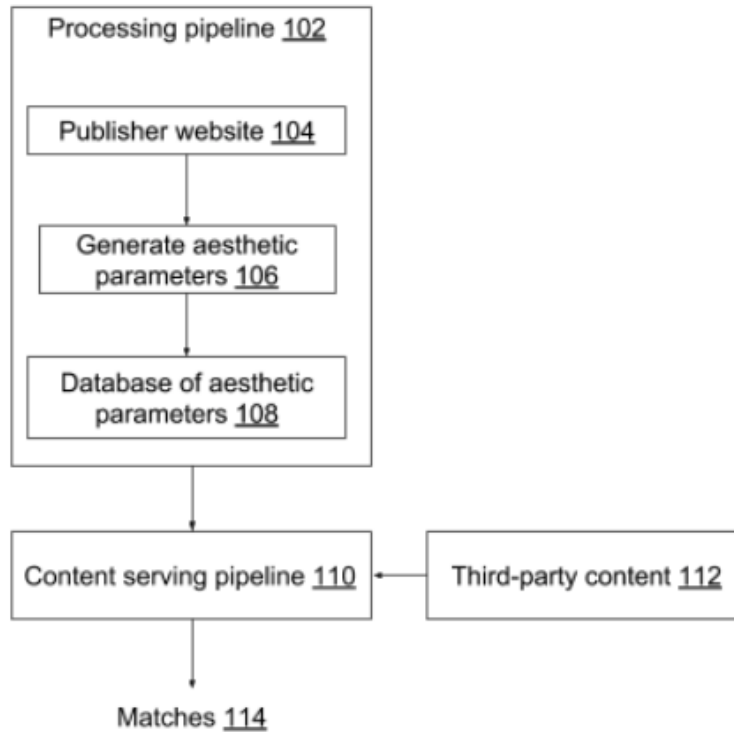


Fig. 1: Matching aesthetics of website and third-party content

Fig. 1 illustrates matching the aesthetics of a website and third-party content, per techniques of this disclosure. In a processing pipeline (102), a website (104) is analyzed to generate a matrix of aesthetic parameters (106). The aesthetic parameters include, e.g., font, font size, text color, image color pallets, etc. The processing pipeline can be run offline and periodically as necessary. The matrix of aesthetic parameters is stored in a database of aesthetic parameters (108).

The database is accessible by a content serving pipeline (110), e.g., by the auction mechanisms involved in ad serving. During ad serving, for example, the similarities between third-party content (112), such as advertisements, and the aesthetics database of the website are calculated and used to prioritize similar content over dissimilar ones. Alternately, priority can be

given to dissimilar over similar content, according to the preferences of the publisher and the performance of ads.

In this manner, the techniques of this disclosure enable the placement of third-party content within websites, e.g., ads, that better fit the surrounding content, without having to modify the third-party content. The techniques enable a website owner to have an input into the process of ad or third-party content selection, giving such owners an assurance of joint control alongside the ad or third-party content provider network.

The techniques enable the optimizing for any aesthetic criteria automatically, and can do so at the granularity of an individual ad or third-party content. For example, if optimizing for click-through, the publisher might choose to place ads that contrast rather than blend with the aesthetic of native or surrounding content. Configurable preferences are provided that enable a website publisher to determine the level, similarity, or contrast of match needed to place third-party content. Example content pieces that are amenable to the techniques include the screenshot used for a video embed, the image chosen to represent an article in a social media embed, etc.

Alternatively, a publisher can describe the look-and-feel or other features of acceptable ads or third-party content, or publish whitelists/blacklists of ad features. A machine-learning model that provides a similarity score can be used to aesthetically match third-party content with a given web-site. The machine-learning model can be trained using expertly evaluated pairs of third-party content and websites.

Still alternately, an ad platform can work with publishers and advertisers to agree on ad placement by making it cheaper for an advertiser to bid for an ad that matches the native content of a publisher. Conversely, the ad platform can make it more lucrative for a publisher to accept ads that don't quite match the native content of a publisher. Similar methods of modifying

content selection may be used to ensure that a publisher's unsold ad inventory and an advertiser's audience reach are both optimized.

CONCLUSION

This disclosure presents techniques that enable publishers and advertisers (or other third-party content providers) to match the aesthetics of their respective content. Aesthetically appropriate ads are displayed on publisher websites without necessitating modification of the ad as submitted by the advertiser.