

Internet Multimedia Advertising: Techniques and Technologies

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ABSTRACT

The explosive growth of multimedia data on the Internet creates huge opportunities for multimedia advertising. In this tutorial, we present the techniques and technologies for Internet multimedia advertising. The tutorial aims at bringing together recent insights from the research on multimedia advertising that addresses the theoretical fundamentals, solution concepts, and the issues related to the development of modern multimedia advertising schemes.

Categories and Subject Descriptors

H.3.3 [Information Storage and Retrieval]: Information Search and Retrieval—*Selection process*; H.3.5 [Information Storage and Retrieval]: Online Information Services—*Web-based services*; H.5.2 [Information Interfaces and Presentation]: User interface—*User-centered design*

General Terms

Algorithms, Experiments, Human Factors

Keywords

Online advertising, multimedia advertising.

1. TUTORIAL DESCRIPTION

Advertising provides financial support for a large portion of today's Internet ecosystem. Compared to traditional means of advertising, such as a banner outside a store or textual advertisements in newspapers, multimedia advertising has some unique advantages: it is more attractive and more salient than plain text, it is able to instantly grab users' attention and it carries more information that can also be comprehended more quickly than when reading a text advertisement. Rapid convergence of multimedia, Internet and mobile devices has opened new opportunities for manufacturers and advertisers to more effectively and efficiently reach potential customers. While largely limiting itself to radio and TV channels currently, multimedia advertising is about to break through on the web using various concepts of internet multimedia advertising.

The explosive growth of multimedia data on the web also creates huge opportunities for further monetizing them with multimedia advertisements. Multimedia content becomes a

natural information carrier for advertising in a way similar to radio wave to carry bits in digital communications. More and more business models are rolled out to freely distribute multimedia content and recoup the revenue from the multimedia advertisements it carries. With the increasing importance of online multimedia advertising, researchers from multimedia community have made significant progresses along this direction. This tutorial aims at: 1) reviewing and summarizing recent high-quality research works on internet multimedia advertising, including basic technologies and applicable systems, and 2) presenting insight into the challenges and future directions in this emerging and promising area.

This tutorial is based on our recently edited book on multimedia advertising [1], and survey papers on media and text advertising [2, 3]. It is appropriate to both graduate students and senior researchers working in the field of multimedia and/or online advertising, as well as industry practitioners who are working in the field of search engine development, video/image content providers, developers of video/image sharing portals and IPTV providers. Instead of in depth coverage of contemporary papers, this tutorial will introduce the important general concepts and themes of this timely topic. Moreover, we will also show extensive demos on contextual multimedia advertising.

The tutorial will address the following aspects in multimedia advertising: 1) introduction of traditional text advertising techniques, 2) understanding audience for user-targeted advertising, 3) image advertising which associates an image with a piece of advertisement, 4) video advertising which associate a video sequence with a set of advertisements, 5) mobile advertising which recommends context-aware and personalized entities to a give user, and 6) challenges and future directions.

2. REFERENCES

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