

# The First Workshop on Internet Advertising Using Sentiment Analysis (AdSent 2013)

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<http://amitavadas.com/ADSENT/>  
<http://sentic.net/adsent/>

## Goals of the Workshop

Online advertising is a rapidly growing, multi-billion dollar industry. In the past two decades it has grown at least an order of magnitude faster than advertising in other media. According to the Global Online Advertising Spending Statistics the total internet advertisers spend in 2012 is estimated at over 94.2 billion dollars and the prediction is it will reach to 132 billion dollar by the end of 2014.

The dramatic growth of Internet advertising poses great challenges to the information retrieval community and calls for new technologies to be developed. Internet advertising is a complex problem. It has different formats, including search advertising, display advertising, social network advertising, in app/game advertising. It contains multiple parties (i.e., advertisers, users, publishers, and ad platforms such as ad exchanges), which interact with each other harmoniously but exhibit a conflict of interest when it comes to risk and revenue objectives.

To deliver contextual ads, most existing advertising systems conventionally adopt simple keyword-matching-based advertising method, however, which may not be effective to match appropriate ads against affective contents of the current article/web-page and end user's needs. For example, a blog written by someone who is complaining on the quality of Sony cameramight trigger an ad of Sony Camera again since this ad matches the topic of the article quite well. Another contrary example is that in casethat the blogger expresses in his article that he is quite satisfiedwith his recently bought BMW; an ad of BMW might also beplaced on the page. In both situations, the blogger will getdisturbed: in the first case the promoted ad is just what he iscomplaining on while it seems to be needless for him in the second case. In both examples, the mismatch arises from the factthat the placement of ads fails to meet users' actual needs due tothe lack of analysis into the sentiment of users, i.e. their attitudestowards topics.

Several communities from Sentiment Analysis and Internet Advertising domains have engaged themselves to conduct relevant conferences/workshops/symposiums in their respective fields. The particular goal of this workshop is to establish a knowledge bridgebetween these two communities i.e. Ad Scientists and Sentiment Analysis researchers, and to discuss future directions and challenges in research and development. We expect the workshop to help develop a new multi-disciplinary community of researchers who are interested in these areas, and yield future collaboration and exchanges.

## Call For Papers

We invite original and unpublished research papers on all topics related to the intersection of Internet advertising and sentiment analysis, including but not limited to the sample topics below. Please note that we will also consider submissions on mobile advertising. Digital advertising could be a better alternative term in that case but we strict to the term Internet Advertising for wide acceptability.

The following is a list of possible topics that may be covered in contributions to this workshop:

### ***- Why existing Ad methods fail to capture affect-sensitive Ads***

- Affect relevance studies for advertising
- Biologically inspired opinion mining for advertising

### ***- Do we really need Sentiment Analysis for better Ad?***

If yes, then what are the possible areas of Sentiment Analysis involvement in Internet Advertisement?

- Content-Affect sensitive Ad selection
- Affect Personalization
- Senti-Behavioral targeting
- Affect sensitive social network Advertising

### ***- What investors look for?***

Investors always look for a particular community as their customer. To reach out that community how SA and NLP can help?

- Behavior targeting and audience selection
- Automatic Ad taxonomy construction based on target group Sentiment profiling
- Community Detection by Sentiment profiling
- Community detection in Social Network
- Demographic profiling

### ***- Domain specific SA and challenges?***

- Blog Advertising
- Review Advertising
- Sponsored Search Advertising
- Social Network Advertising
- Mobile Advertising

### ***- Can we leverage existing cross-lingual IR and/or cross-lingual SA knowledge to reach out multi-lingual and multi-cultural audience for Ad***

- Cross lingual IR and SA and appropriate Ad selection

### ***Research Challenges***

#### ***- What level of linguistic SA analysis is possible/necessary?***

How can existing analysis techniques be adapted to this medium?

- Concept-level sentiment analysis for advertising

## Related Works

The small selection of recent publications in this area provided below gives an indication of the broad range of questions related to the study of Sentiment Analysis and Internet Advertising. Workshop participants and contributors are expected to come from various areas of research: NLP, Ad Sciences, Text Mining, Information Retrieval, Semantic Web and etc.

### **Selected Literature:**

- Wen-Hsiang Lu and Yao-Sheng Chang. (2011) Effective Blog Advertising by Understanding Blogger's Emotion and Needs. In the Proceeding of the Workshop: Internet Advertising (IS2011), SIGIR 2011.
- Tanveer J Siddiqui. (2011) "Utilizing Sentiments in Online Contextual Advertising", In Xian-Sheng Hua, Tao Mei and Alan Hanjalic (Eds.), Online Multimedia Advertising: Techniques and Technologies, pp. 32-47. Xian, IGI Global.
- GuangQiu ,Xiaofei He , Feng Zhang , Yuan Shi , Jiajun Bu , Chun Chen, (2010) "DASA: Dissatisfaction-oriented Advertising based on Sentiment analysis" , Expert Systems with Applications, 37 (2010) 6182–6191.
- Teng-Kai Fan and Chia-Hui Chang. (2009) Sentiment-Oriented Contextual Advertising. In the Proceedings of the 31<sup>th</sup> European Conference on IR Research on Advances in Information Retrieval (ECIR), Pages 202-215.
- Kangmiao Liu, QuangQiu, Can Wang, Jiajun Bu, Feng Zhang, Chun Chen. (2008) Incorporate Sentiment Analysis in Contextual Advertising. WWW 2008, April 21--25, 2008, Beijing, China.

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