Introduction to Web Science

Assignment 11

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Tutorial on: February 10, 2017, 12:00 p.m.

This assignment focuses on **Online Advertisement**. As discussed in the class, teams with exact similar answers that give an indication of copying will receive null points for those questions. If you are taking answers from some source, please cite your sources.

Team Name: India

1 Online advertisement (10 points)

In the videos about online advertisement, you learned about the three different payment methods for online advertisement.

1. Name all three methods.
   Answer
   The three Payment Methods are
   CPM - Cost Per Mille
   CPC - Cost Per Click
   CPA - Cost Per Acquisition

2. Mention the advantages and disadvantages, for publisher and advertiser, of all the payment methods and explain them in your own words. q1

Payment Method	Advantages	Disadvantages
Cost Per Mille	Publisher get the revenue for the views even though the customers wont interact with ad.	Advertiser need to spend even the ad don't attract the customer
Cost Per Click	Advertiser will be paying only if he get the customers actions on the website	In this the amount is paid to publisher only if certain predefined actions are performed in advertisers site which need advance tracking system , publisher is not paid if it couldn't generate customers for the advertisement
Cost Per Acquisition	The publisher get paid for clicking Ad rather than performing an action in advertiser site.the Advertiser will pay if the ad attracts the customer by clicking.	There may be the chance that publisher wont be paid if the customer don't click the ad

3. Provide real world examples for the three payment methods.
   Answer:
   Cost Per Mille: The practical example for the CPM is Ads in You Tube Here

the Publisher site will be Channel which publish video in You Tube and the Advertisement Agencies is Google Adsense, the Advertiser will publish the ad video before playing the requested video by the Viewer .so the channel is the publisher of the video and get paid based on the number of views .

Cost Per Click: The Face book Ads are the examples of the Cpc where the publisher publish ads on their facebook page and adwords of google is advertising agencies the publisher pay for the click of the ads not for posting ads.

Cost Per Acquisition: Advertising in blogs using Affiliated marketing,where a blogger post the ads of the publisher and if the viewer buy or sign up the publisher would pay for the action to the blogger ads on amazon on blogs if the viewer purchases the item by clicking the ad on publisher publisher get paid.

2 Payments in Online Advertisement(15 points)

Provide the complete calculation with your solutions for the following questions.

1. An online advertisement company offers you to advertise your website on a cost-per-click base (CPC) with a cost of 0.70€ per click. Assuming that in average three out of ten visitors of your website are buying a product from which you are earning 20€, would you accept this offer? What is your average profit/loss per visitor?
   Answer:
   Th CPC=0.70€
   three out of 10 visitors are buying the product CR=30% ,so the cost for 10 Clicks is 7€
   Three from 10 Produce the profit of 20€
   the total profit=20-7=13€
   The deal is desirable.

2. What would be the minimal conversion rate (CR) to guarantee your profit?
   Answer:
   The Total cost spent=7€ the Profit out for 3 acquisitions=20€ One Acquisition=6.6 € out of 10 at least Two has to buy
   CR=2/10=0.2
   The minimal Conversion rate is 0.2

3. Two online advertisement companies A and B are making you offers to advertise your website. Company A follows a cost-per-mille (CPM) model with a cost of 2,40€ for displaying your banner advertisement thousand times. Company B follows a cost-per-action (CPA) model charging a commission of 6% from every profit generated on your website through clicks on the banner ad. Assuming a click-trough-rate (CTR) of 0.5%, a conversion rate (CR) of 20% and an average profit of 40€ for every transaction on your website, which offer is the best?
   Answer:
   company a works on the CPM
   For 1000 ads the cost is 2.40€
   CTR00,5% it result in 5 clicks per 1000 views conversion rate is 20%
   This result in one purchase of profit 40€
   Company B Works on the CPA Which shares a profit of 6% on each purchase which means 6% of 40€=2.4€ per Acquisition CR=20% CTR=0.5% if 1000 views5are attracted the 5*2,4=12€
   therefore it is better to go with Cost Per Mille.

4. Assuming an online advertisement campaign for a website has obviously a high click-through-rate (CTR), but the earnings from the website are still very poor. What do you think could be the problem (please provide your answer in one or two paragraphs)
   Answer:

Even though the company is getting good CTR but the earning form the site is less the possible reasons would be the Click Fraud.

The main intension is increasing the click rate but don't show any interest in the ads.the clicks are made to produce the revenue from the Advertiser

This is done from the Publisher site by clicking the ads so that based on CPC the publisher can get revenue from the publisher.

the other possible competitor of the publisher just produce the unnecessary clicks to misguide and waste the resources of the publisher.

th other possible reason is like after clicking the ad the viewer feels the ad as inappropriate may be the Advertising agencies wasn't posted the ad on appropriate publisher ,

The Viewrs are not satisfied by the content and the presentation of the ads.

3 Online vs. TV Advertisement (10 points)

1. Which of the three payment models is most similar to advertisement on TV (*explain your choice and also why you think other models are not similar*)?
   Answer: Advertising on the TV is similar to CPM Cost per Mille because the advertiser pay to the publisher based on the number of times the ad is published and the size of ad .
   The publisher could not know the effect of advertising at that time until a survey is done. In Cost per click the payment is done for action of the viewer on site TV is a passive object where the viewer cant respond to the ad on the TV.
   In Clock per Acquisition the payment is done by tracking the action of the customer on the advertiser site the publisher who lead the customer on the Advertising site will be payed,Where has in TV the some Ads are published in more then one channel where the user get to know about the product and the publisher cant track the details from the customer .

2. What do you think are the most important advantages of online advertisement compared to advertisement on TV (*highlight 5 advantages and explain each of them*)?
   Answer:
   1.The CostPerMille Where we will pay for Publishing the Ad 1000 times the cost spent on CPM is **less Compared to the cost spent on TV** for few times a day and in this Internet days most of them spend time online where it can attract most of the customer.
   2.The Cost Per Acquisition where the **customer are driven to the product 24X7** just by the click where has by TV there would be chance of decision change by the time customer arrive to the store or online.
   3.Cost Per Click the **Advertiser pays only if the customer sees** the Ad where As in TV the chances of interacting to the Ad is not Effective
   4.By using **the tracking system** we can pay based on the length of the videos that viewer see and calculate the cost where as on TV its not compulsory that the viewer see the total ad or not but we pay. 5.In On-line we can post the ads based on the **Geo-location or by the taste of the viewer** by using the techniques like cookies to track the behavior of the viewer

Important Notes

Submission

- Solutions have to be checked into the github repository. Use the directory name `groupname/assignment11/` in your group's repository.

- The name of the group and the names of all participating students must be listed on each submission.

- Solution format: all solutions as *one* PDF document. Programming code has to be submitted as Python code to the github repository. Upload *all* `.py` files of your program! Use `UTF-8` as the file encoding. *Other encodings will not be taken into account!*

- Check that your code compiles without errors.

- Make sure your code is formatted to be easy to read.
    - Make sure you code has consistent indentation.
    - Make sure you comment and document your code adequately in English.
    - Choose consistent and intuitive names for your identifiers.

- Do *not* use any accents, spaces or special characters in your filenames.

Acknowledgment

This latex template was created by Lukas Schmelzeisen for the tutorials of "Web Information Retrieval".

LaTeX

Currently the code can only be build using LuaLaTeX, so make sure you have that installed. If on Overleaf, there's an error, go to settings and change the LaTeXengine to `LuaLaTeX`.