GLOBALAD: ONLINE ON-DEMAND ADVERTISING TECHNIQUES

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ABSTRACT

Advertising in tangible newspapers seems to be a dying method of advertisement, but it offers one of the most reliable ways to give consumers reliable and complete information about a product or service. There are currently some web applications that offer solutions for creating and submitting newspaper ads, but they are very limiting. Current solutions don't give users the ability to advertise in other countries, local newspapers, or in sections other than the classified section of the newspapers. In this paper, methods are presented that allow anyone in the world to deliver an add to any newspaper in the world. This is achieved through the use of SQL database that contains each newspaper and relevant information about each paper. Each user can submit an ad to one of these newspapers. All ads and payment confirmation then becomes available to advertising agencies across the world who deal directly with the newspaper to publish the ad. The application was created based on results of a comparison of existing applications that deliver user-created ads to newspapers online. Experimental results confirm the success of the prototype under random conditions. Further study regarding user reaction will be disseminated at a later time.

1 BACKGROUND

Newspapers have been a primary form of advertisement in America and the rest of the world for hundreds of years. But recently the industry has noticed sharp declines in advertising-based revenue [1]. In 2011, print advertising revenues fell 9.2 percent. This is a common trend that has left newspapers desperate for solutions a lack of funds. In the same year, Google Inc. recorded revenues of approximately 38 billion dollars, 4 billion more than the advertising revenues of the print industry. The decline is not due to a difference in content of the ads, in fact, studies have shown that advertisements in newspapers tend to contain more information that is relevant to the product or service it was meant for [2]. Online advertisements are dominating the market because they are easy to create and can target specific demographics more easily than newspapers can. But there is room for both methods of ad delivery; even though online ads can target specific demographics more easily, newspapers can target specific geographical areas more easily. The problem that is then created is that it is hard to communicate with newspapers in regions other than your own. It is both time consuming and difficult because of delays created by distance and in some cases a language barrier. So, the two main issues that exist for newspaper revenue are decreasing newspaper sales and geographical restrictions on who can advertise in their paper. GlobalAd addresses the latter issue.

Newspapers are important. They are more than paper and text. A look at the inner workings of a newspaper demonstrates just how important they are. Each newspaper has a team of writers and journalists working to expose the truth about society, and translate it to the public as news. When newspapers fail due to a lack of funds, the public loses some of its power in the form of information. Most news and information we receive on current issues don't come from television reporters or bloggers, they are rooted in a newspaper. For this reason it is important to make it as easy as possible for people to utilize the advertising power of newspapers effectively.

2 INTRODUCTION

The newspaper industry has seen large losses in advertising revenue recently due to the development of other advertising mediums such as internet-based ads and television-based ads [1]. The primary reason that these methods of delivering advertisements has become more popular than newspaper advertisements is their ability to reach a specific demographic of people more effectively than traditional newspaper advertisements [2]. Online advertisements have become more accessible than print advertisements; anyone can access these ads from anywhere in the world, not just from one newspaper. Online advertisements are also more accessible for the person supplying the ad. They can simply use a browser to submit their ad to a website that provides an advertising service, pay them with their credit card, and track the effectiveness of their ad. When advertising with newspapers, unless the area you live in is the only place you are interested in advertising in, correspondence with the newspaper to submit an ad can be cumbersome and excessive.

A possible solution to this problem is to allow people to create and publish ads in newspapers from the internet, allowing them to communicate to a more specific demographic anywhere in the world from one access point. There are online newspaper ad delivery solutions in places such as 'adstuff.com' and 'releasemyad.com', but they limit the user in many ways. Both of these solutions limit the user by not allowing them to advertise outside of the country and only advertise in the classified sections of selected newspapers. A user can also be limited to publishing in nationwide newspapers, making it very hard for them to advertise to a niche group of people in a more localized area.

One reason 'adstuff.com', 'releasemyad.com', and similar sites fail to revive the newspaper industry is the way in which they deliver ads to the newspapers that they allow you to advertise to. These solutions generally deal directly with the newspapers themselves. This is an inherent problem because newspapers must agree to use the solution to get the ads and allow you to deliver them. Many newspapers don't need to deal with these sorts of websites to get their ad pages filled, so they aren't willing to deal with these websites. This is also the reason these solutions primarily allow you to post in only the classifieds, which isn't a very appropriate section for most ads.

3 RELATED WORKS

The specific problem that GlobalAd addresses, that is: allowing people to advertise to people to any newspaper in the world, has not been addressed directly in a formal way. But there are several works that discuss the global approach of advertising, use of advertising agents, local marketing, and the use of newspapers.

Advertising globally has become more important to businesses both large and small. This has come as a result of the transition of businesses from local to the global market places. Aaker[3] identifies this and explains that the ideal marketing campaign is both global and branded in the same way to each culture, while still being appropriate for each culture. Aaker also realizes that for many companies this is not reasonable because it is very hard to achieve this across cultures and it is very expensive. So most businesses, especially small businesses, must advertise on a smaller scale globally.

The only cheap, effective way to reach a broad global audience through advertising is through the use of the internet. Works that focus on advertising directly on the web often come to the conclusion that people have become blind to most forms of online advertising. Cho [4] recognize that this is true for several reasons: bad past experiences with ads, clutter, and the ad slows or stops the user from achieving their goal. Similarly, Rettie[5] thinks that the internet is the least trusted medium of advertising, with click-thru rates going from 5 percent in 1999 to .5 percent in 2003. For these reasons internet ads have very low click-thru rates and aren't a

very effective way of advertising as it is done now. The GlobalAd program offers an internet-mediated way to reach people in a more efficient way.

Tangible newspapers provide a larger diversity of advertisements than online newspapers on both a day-to-day basis and issue-to-issue basis according to Mangani[2]. Similarly, when Denk[6] compared identical online and print advertisements with respect to brand recognition, they were about equally effective at achieving brand recognition. Since they deliver very similar brand recognition rates and print advertising offers more effective ways to target the intended market, print advertising is more cost effective with respect to returns on advertising expenditures.

Advertising is one of the most costly aspects of business, but it is also one of the most hands-off. According to West [7] businesses spend most of their advertising budgets on services, that is, they pay an advertising agency to do the conceptualization and distribution of the ads that represent their business. Advertising, especially for small businesses, is more cost effective when it's done this way because advertising firms have more resources and general knowledge about how to distribute advertisements more effectively. Leslie [8] states that advertisement and culture are very interrelated. When advertising abroad, it is very important to target specific people with advertisements that relates to their culture. Advertising agencies have become more and more transnationalized allowing them to mediate and distribute advertisements to anywhere in the world, targeting almost any group of people in the world.

4 METHOD

One aspect of print advertisement that is often ignored is the use of an intermediary. The use of advertising agents to deal directly with newspapers and to get the ads published increases the number of newspapers in the world that are available to advertise in because they are much more willing to deal with these agents that have a better understanding of the industry in that country. The use of agents also reduces the amount of information that must be stored about a given newspaper to its location, name and ad rates. This minimal amount of information will optimize the speed of the application and simplify the process of submitting a users advertisement. It also makes it easier to add a massive amount of newspapers located anywhere in the world, increasing the span and utility of the application.

4.1 Storing Newspaper Information

The newspapers will be stored in a SQL database. SQL is used because of its speed and efficiency in searching through very large datasets, in this case the stored information about each newspaper in the world. The population of the SQL database will be the most time consuming and tedious aspect of the project because all of the newspapers must be found and indexed manually.

4.2 Storing User Information

User information is stored in the same way the newspaper information is stored, in an SQL database. The difference is that the user supplies all of their own information such as their advertising materials, personal information, and preferences. All of this information is retrieved from the user through the use of web forms. These web forms are generated using the C# programming language. These forms are validated then the information is added to the proper SQL database for later use.
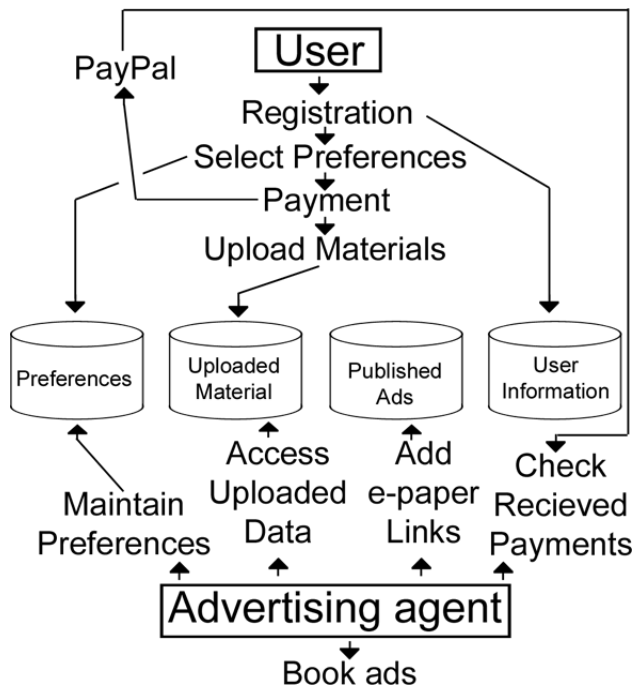
Figure 1. Architecture

4.3 Booking Ads

4.3.1 Payment

After the user uploads their ad information and sets their preference for what specific newspaper they want to advertise in, they must pay for the advertising space. This payment goes to the advertising agent that will communicate with the newspaper directly. The payment system uses the PayPal payment gateway. To pay for their ad the user simply enters their credit card or alternative payment information into the default paypal form and await payment approval. Once the payment is approved a receipt is sent to both the user and the advertising agent as a proof of payment.

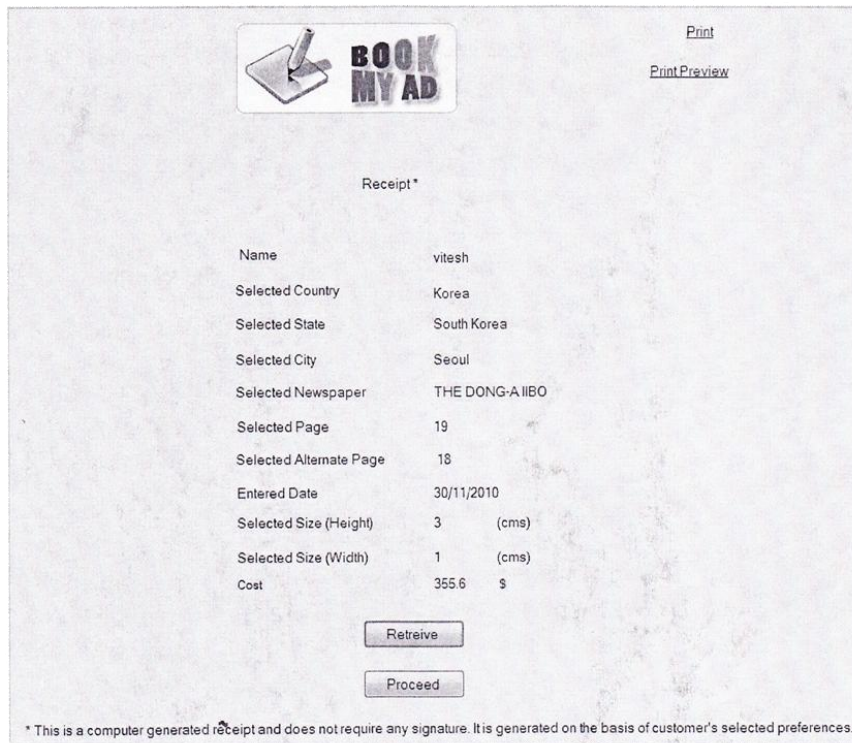#### 4.3.2 Contacting the Newspaper

When the advertising agent receives the payment for the user's advertisement they can proceed to finalize the ad submission process.

The advertising agent has access to both the user's preferences and their uploaded advertising material. With this the agent can determine what newspaper the user wants to have the ad in, where in that newspaper they want the ad, and the date that the user wants the ad in the paper. The advertising agent then contacts the newspaper and pays them for the ad space. At this point the newspaper has the ad to be featured in their newspaper. As proof of a successful transaction, the advertising agent can scan the paper that features the user's ad and upload it into a SQL database. From here the user can access this image to ensure the transaction was successfully completed.

4.4 Design

This web interface is a series of forms that are made in C# that connect to the SQL databases using ASP.NET. The user first registers for a new account or logs into their existing account using C# forms that access the user preferences table using ASP.NET. From this point the user can use all of the above previously explained forms to communicate with the SQL databases and, ultimately, the advertising agent.

The advertising agent has a similar interface that uses C# and ASP.NET to connect to the SQL database, but this section is more oriented towards viewing database information rather than inserting and modifying information into and from the database. The agent can also upload images or links to the newspaper page that features the user's ad using a C# form.

Figure 2. Form Design

5 RESULTS

GlobalAd underwent a single round of alpha testing to prove its working condition. The alpha version of the software only included newspapers from China and Korea. To ensure that the software was working an account was created, advertising information was submitted, and user preferences were submitted. The country of the newspaper the advertisement would be hosted in was randomly selected, resulting in the selection of an ad in Seoul, South Korea in the newspaper "THE DONG-A IIBO" on page 19 on November 30th, 2010. The cost of this ad was 355.60 dollars. After the ad was successfully paid for and the receipt was obtained the advertising agent could access this information. After the publication date for the advertisement, the newspaper page with the ad was uploaded to the database and made available to the user. The process was successful proving that the application works. Further beta testing will be performed when the application is used by potential clients. Their reactions will be gauged by their responses to a few questions and the financial effect of advertisements submitted with GlobalAd will be monitored in a similar question and answer format.

Figure 3. Published Advertisement

6 CONCLUSION

Using the large database of newspapers and intermediary advertising agents, GlobalAd is able to provide users the ability to serve their ad to any newspaper in the world in a very quick and effective way, thus, solving many of the problems that newspaper ad delivery systems experience: the ability to supply ads to newspapers in different countries, supplying ads to any page of the newspaper, and supplying ads to newspapers that are not distributed nationally. The use of SQL databases and PayPal allows the user to communicate their ad to the advertising agent and ultimately, their target audience in a much quicker and selective way than conventional and existing newspaper advertising techniques allow for. These aspects of GlobalAd make it the best choice for anyone who wants to advertise in newspapers.

7 REFERENCES

1. R. G. Picard, Shifts In Newspaper Advertising Expenditures And Their Implications For The Future Of Newspapers In Journalism Studies, vol. 9, No. 5, 2008, pp. 704-716.

2. A. Mangani, The variety of online and print advertisements: ITALY** In Studies in Communication Sciences, September 2, 2009, pp. 259-267.

3. Aaker, D. A., &Joachimsthaler, E. (1999). The lure of global branding. Harvard Business Review, 77, 137-146.

4. Cho, C. H., & as-, U. O. T. A. A. I. A. (2004). Why do people avoid advertising on the internet?.Journal of advertising, 33(4), 89-97.

5.Rettie, R., Robinson, H., & Jenner, B. (2003). Does internet advertising alienate users?.Kingston Business School, Kingston University.

6. M. Denk, L. M. Wakolbinger, The Effectiveness of Combining Online And Print Advertisements Is The Whole Better Than The Individual Parts? In: Journal of Advertising Research, September 2009.

7. West, D. C. (1997). Purchasing professional services: the case of advertising agencies. Journal of Supply Chain Management, 33(3), 2-9.

8. Leslie, D. A. (1995). Global scan: The globalization of advertising agencies, concepts, and campaigns. Economic Geography, 402-426.