

Advertisement Web Portal - inBCN Insight Media Manager

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Abstract—This paper presents Online Advertising is the form of promotion that uses online advertisement and World Wide Web(www) to deliver marketing message to attract, retain and enhance the customers. A consumer can have idea and information of even a small business enterprise with respect to large business enterprises regarding products and services. Focus on different trends of online advertising system also has been done which results with the fact that online ads has become a challenge for the print ads as various online applications, social site help to lead towards the data instantly than other advertisement media existing. This is an attractive awareness creating tool of promotion of the business. An online advertising system is a “service business” dedicated to creating, planning and handling Advertising (and sometimes other forms of promotion for its clients. An ad system is independent from the client and provides an outside point of view to the effort of selling the client's products or services. An online advertisement system can also handle overall marketing and branding strategies and Sales Promotion for its clients. The conclusion which can be drawn from this study is that there is clear evidence that good management will improve cognitive, affective and conative degree of consumer behaviour.

Keywords - Online Advertisement, interactivity, advertising management, digital marketing, sales.

I. INTRODUCTION

Advertising is a form of communication which persuades the consumer for making purchase decision and to provide information to the viewer. When the information is presented in an enjoyable context, it is readily accepted. Thus, we can term advertising as an infotainment concept. The concept of advertising came into existence with the Marketing Mix. Marketing mix well known as 4 Points of marketing i.e. Product, Price, Place, Promotion and advertising is a component of Promotional mix, which is to create awareness among the consumers about the products and services for making the purchase decision. Advertisement can be seen from date backs in the ancient

In modern days, online advertising has become the most important form to promote the products and services and is used for the purpose of communication as well. The internet emerged as a new tool in the mid-1990s, for reaching consumers and also provided a variety of technologies for influencing opinions and desires. The evolution of the Internet provides the new opportunities into the globalization as well as the local region.

In 21 st century, online advertising system provides more exposure and control to the customers and they can also select how much commercial they wish to view. Consumers can explore promotion, get pricing information, participate in product design, arrange deliveries, sales and also can receive post purchase support We are in a world where we need to introduce ourselves. So, by keeping this in mind we developed a website which is used for marketing our products but this is for small scale businesses. In this project there are several things such as users, content creators, admin. Everyone has a specific role to do.

We developed this to help the small businesses. With this website we are targeting middleclass and

lower middleclass families. In this website we connect middleclass people to the small business where the customer gets virtual contact with the shop owners and specify their requirements and as the business is also small there may be chance of bargaining which is the common habits of middle-class people. In this website the vendors publish their products. And the users will go through that and if interested they will contact the vendor and do the proceedings.

This website is not only for products but also for several purposes such as entertainment, education, sports etc. In this you can advertise about anything. And there is a special thing that the admin will look out everything that is being published and if anything is inappropriate, he can delete the post. Currently it is a non-profitable website as it is in the starting stage. This is what the website is all about.

II. RELATED WORK

Online Advertising system is an non- personal communication about an organization product services or idea by an identified sponsor. The advertising was originally established in online platforms like YouTube, twitter, Facebook etc However focus has started to shift away from the traditional method to online advertising, because recently it get more majority and a need to every internet users because of the changing circumstances of the world. In this research it has been analysed and examined the factors, attitudes, opinion and problems of online advertising system among the internet user.

In today's world, the internet has become an important part in everyone's day to day life. Living without internet has become tough for majority of the humans around the world and it can be said that the internet is to rule the whole world day by day. In the same time it is also equally important to know the worthiness of the communications delivered through online. It also raises the question of whether the users of internet advertisements face any problems in it and whether they are affected by any of the factor while making their decision through online advertising

In the existing system there is no application to view the details of the advertisements. It takes more time for the allocation process. The information cannot be generated properly and it cannot be sorted at right place. Difficult to handle many methods. Difficult to maintain. Here in the existing system we cannot give proper information to the subscribers and they cannot contact us. By this project subscribers can make the advertisement easier. Saving time and right information is available in the website.

The related work section of an advertisement management system project would typically discuss existing systems, research papers, and technologies that are relevant to the project's goals and objectives. Provide an overview of popular advertisement management systems currently in use, such as Google Ads, Facebook Ads Manager, or other industry-specific platforms. Discuss their features, limitations, and how they handle ad campaign management, targeting, and performance tracking.

Review academic papers and research studies related to advertisement management, online advertising, targeting algorithms, optimization techniques, and user behavior analysis. Highlight key findings, methodologies, and insights relevant to your project.

Explore techniques for ad targeting and personalization, including demographic targeting, interest-based targeting, behavioral targeting, and re targeting. Discuss how these techniques are implemented in existing systems and any challenges or opportunities they present.

Examine methods for optimizing ad campaigns to maximize ROI (Return on Investment) and achieve desired outcomes such as clicks, conversions, or brand awareness. This could include strategies for bid management, ad creative testing, A/B testing, and performance analysis.

Address the issue of ad fraud and discuss existing approaches for detecting and preventing fraudulent

activities such as click fraud, impression fraud, and bot traffic. Explore techniques such as anomaly detection, machine learning, and pattern recognition. Review best practices in user experience (UX) and interface design for advertisement management systems, focusing on usability, accessibility, and efficiency. Discuss how intuitive interfaces and workflows can improve user satisfaction and productivity.

Consider legal and ethical issues related to online advertising, such as user privacy, data protection, compliance with regulations (e.g., GDPR, CCPA), and ethical advertising practices. Discuss how existing systems address these concerns and any emerging trends or regulations in the field.

III. PROPOSED WORK

In the proposed work section of an advertisement management system project, you'll outline your plan for developing or enhancing the system. Provide a brief overview of the advertisement management system you intend to build or improve. Describe its core functionalities, target users, and the problem it aims to solve. Clearly state the objectives of your project. What specific goals do you aim to achieve with the development or enhancement of the advertisement management system? These objectives should be measurable and tied to the needs of users or stakeholders.

The technique is split into 4 sub-sections: training and testing records, information pre-processing, classifier description, and performance assessment. The special description of the sub-segment is as follows:

Outline the key features you plan to implement or enhance in the advertisement management system. These could include: Improved targeting algorithms for more effective ad placement. Enhanced campaign management tools for easier creation, monitoring, and optimization of ad campaigns. Integration with additional advertising platforms or channels to broaden reach. Advanced analytics and reporting capabilities for better performance tracking and insights. Automation features to streamline repetitive tasks and improve efficiency. Enhanced user interface and experience to make the system more intuitive and user-friendly.

Specify the technologies, frameworks, and methodologies you'll use to develop or enhance the advertisement management system. This could include: Programming languages (e.g., Python, JavaScript). Web development frameworks (e.g., Django, Flask). Database systems (e.g., PostgreSQL, MongoDB). Cloud services (e.g., AWS, Azure) for scalability and reliability. Agile or iterative development methodologies for rapid iteration and feedback.

Provide a high-level overview of your implementation plan, including key milestones, timelines, and resource requirements. Break down the development process into phases or iterations, highlighting major tasks and deliverables for each phase.

Define the criteria you'll use to evaluate the success of the advertisement management system. This could include: Performance metrics such as ad click-through rates, conversion rates, and ROI. User satisfaction surveys or feedback. Comparison against benchmarks or competitors' systems.

Identify potential challenges or risks that may arise during the development or implementation of the advertisement management system. Discuss strategies for mitigating these challenges, such as contingency plans, resource allocation, or alternative approaches. Discuss any ethical considerations relevant to your project, such as user privacy, data protection, and fairness in ad targeting. Explain how you'll ensure that the system adheres to ethical principles and complies with relevant regulations and guidelines.

By outlining your proposed work in these areas, you'll provide a clear roadmap for developing or

enhancing the advertisement management system and demonstrate the value it will bring to users or stakeholders.

IV. PROPOSED RESEARCH MODEL

This proposed work makes use of a convolutional neural network (CNN) model to categorise brain MRI pics into eleven unique classes: alzheimer mild-demented, alzheimer slight-demented, alzheimer non-demented, alzheimer very slight-demented, brain tumor glioma, brain tumor meningioma, brain tumor pituitary, brain stroke, Parkinson, white matter disorder, and ordinary. CNN is a deep learning structure which is broadly used for photo classification, object recognition, and computer vision duties. It's specifically useful for photo classification as it could routinely analyze functions and patterns from the pics.

The model consists of several layers that exercise the input pic and produce output with shape of class possibilities. The layers are organized in a sequential order, wherein the output of 1 layer is used because the input for the following layer.

Primary demand is demand for the product or service rather than for a particular brand. It is intended to affect the demand for a type of product, and not the brand of that product. Some advertise to stimulate primary demand. When a product is new, primary demand stimulation's appropriate. At this time, the marketer must inform consumers of the existence of the new item and convince them of the benefits flowing from its use. When primary demand has been Stimulated and competitors have entered the market, the advertising strategy may be to stimulate the selective demand.

This new advertising agency application will help to reach maximum number of persons through its online engagement features. To make them more under stable and stay connected, it's the advertising agency which has used the integration of prime time TV ads, website ads and newspapers features. With the cost effective technology solutions developed in modules, it's easier to handle and manage. This system is self-explanatory from every portions because of its excellent user interface. It's the system by which consumers will be more under stable and not to be cheated by others. It's the new system which has been developed keeping in view and title of project.

In order to avoid the above problem this project is to provide advertisement details like advertisement cost in various channels, various websites, various newspapers and cost also depends on the timing of the ads, content of the ads and ads placement in the newspaper based on the user requirements and depending upon the users budget the cost estimation is given by the admin for users different advertisements plans.

Our four scenarios reflect several critical uncertainties in the matrix. These drivers and their effects may differ from scenario to scenario, with each describing an extreme point of possible developments in the advertising market. In addition, we have identified seven factors whose development can be predicted with a high degree of certainty and which are relevant for all scenarios. Marketing clouds are indispensable elements in advertising processes, as they control the creation and management of marketing relationships and manage campaigns with customers. It will become standard to integrate solutions for customer journey management, email, mobile, social, web personalization, advertising, content handling, and analytics

Artificial Intelligence is ubiquitous in the advertising space. AI supports decision-making and analyzes consumer behavior. Enriched with data about how consumers interact with advertising, it substantially optimizes campaigns to perform better. Implemented consistently and to its full extent, AI understands consumers better than they do themselves.

Programmatic is the standard for digital advertising. Processes are fully automated in the context of purchasing and selling ad space and dynamically placing digital ads, and transactions take place in real time. Programmatic is an essential enabler for targeted advertising. Traditional processes involving RFPs, human negotiations, and manual insertion orders will vanish from the digital advertising space.

Digital advertising is predominantly contextual. Ads are selected and placed by automated systems, based on ever more detailed user profiles and the content displayed. The increase in mobile and location-based advertising strengthens this trend. The continuing digitalization of advertising with new market players, changing job profiles, and a shift of power within the industry causes an enormous war for talent. Employers compete for experts with scarce, specialized skill sets. Demand for data scientists, analytics experts, and creative minds is huge at present and will remain high.

V. PERFORMANCE EVALUATION

The performance evolution of an advertisement management system can be analyzed through various metrics and indicators over time. Start by establishing baseline metrics to measure the initial performance of the advertisement management system. These metrics may include: Ad click-through rates (CTR) Conversion rates Return on investment (ROI) Cost per acquisition (CPA) Impressions served Revenue generated

Conduct A/B tests to evaluate the impact of changes or enhancements to the advertisement management system. Compare the performance of different versions of the system or specific features to determine which ones lead to better outcomes. Gather feedback from users, advertisers, and other stakeholders to assess their satisfaction with the advertisement management system. Use surveys, interviews, or feedback forms to gather qualitative insights into user experiences and preferences.

Analyze trends in performance metrics over time to identify patterns and correlations. Look for seasonality effects, market trends, or external factors that may influence the performance of the advertisement management system. Compare the performance of the advertisement management system against industry benchmarks or competitors' systems. This can provide context and help identify areas for improvement or areas where the system excels. Continuously iterate and improve the advertisement management system based on performance data, user feedback, and market trends. Implement new features, optimizations, or enhancements to address any identified weaknesses or capitalize on opportunities for growth.

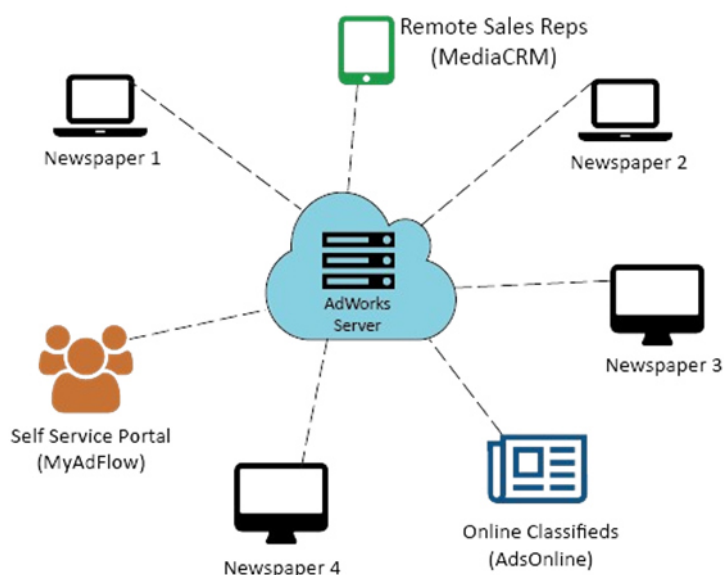


Fig 1: Advertisement Portal Prototype

Monitor the scalability and reliability of the advertisement management system as it grows and handles increasing volumes of ad traffic. Ensure that the system can handle peak loads and maintain high

availability to prevent disruptions in service. By systematically tracking performance metrics, gathering feedback, and making iterative improvements, you can drive the evolution of the advertisement management system towards achieving its objectives and delivering value to users and stakeholders.

VI. RESULT ANALYSIS

Analyzing the results of an advertisement management system involves assessing various performance metrics and understanding the implications of those results on the system's effectiveness and efficiency.

Evaluate the performance metrics collected over the specified period, such as ad click-through rates, conversion rates, ROI, CPA, impressions served, and revenue generated. Compare these metrics to baseline values and any predefined KPIs to determine if the system is meeting its goals and objectives. Identify trends and patterns in the data, including any notable increases or decreases in performance metrics over time. Assess the impact of any changes or enhancements made to the advertisement management system during the analysis period. This could include updates to targeting algorithms, changes in ad creative, modifications to campaign settings, or improvements in user interface design. Determine whether these changes have led to improvements in performance metrics, such as increased CTR, higher conversion rates, or improved ROI. Analyze A/B test results to identify which variations or features are driving the most significant improvements in performance.

Review qualitative feedback from users, advertisers, and other stakeholders to gain insights into their experiences with the advertisement management system. Identify common themes or issues raised by users and assess their impact on user satisfaction and system performance. Use user feedback to prioritize future enhancements and improvements to the system, addressing any pain points or areas for improvement. Conduct trend analysis to understand how performance metrics have evolved over time and identify any underlying patterns or factors contributing to these trends. Consider external factors such as changes in market conditions, seasonal trends, or shifts in consumer behavior that may influence the performance of the advertisement management system.

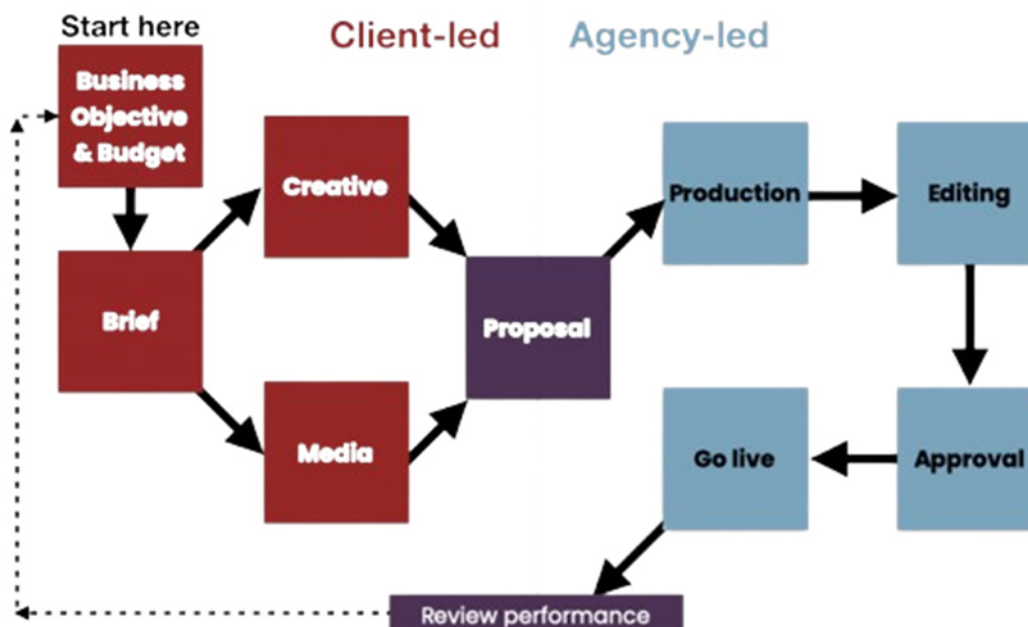


Fig 2 : Advertisement Management Process

Compare the performance of the advertisement management system against industry benchmarks and competitors' systems to assess its relative performance. Identify areas where the system excels compared

to competitors and areas where there may be opportunities for improvement. Use bench marking data to set realistic performance goals and benchmarks for future iterations of the system.

Evaluate the scalability and reliability of the advertisement management system to ensure it can handle increasing volumes of ad traffic and maintain high availability. Identify any scalability or reliability issues encountered during the analysis period and develop strategies to address them, such as optimizing system architecture or infrastructure. Based on the analysis of performance metrics, user feedback, and trend analysis, make recommendations for further improvements to the advertisement management system. Prioritize these recommendations based on their potential impact on system performance, user satisfaction, and business goals. Outline next steps for implementing recommended changes, including any necessary development work, testing, and deployment processes.

VII. CONCLUSION

The effectiveness of Online Advertisement is there which is not necessary to club with the age groups. All are independent. Any of the factor can persuade individuals with no distinctive barriers. As strong the effectiveness of online advertising, as more will be the purchase and accordingly be the relation between E-Commerce and advertisement. Online advertising is a form of advertisement which is published on the web to serve the web users with up to date information regarding the products and services that are new to the market as well as the products that are already available in the market which needs the promotional activity to reach to the hands of the right persons. It is useful in generating awareness among the viewers about their products and services. The online advertising is a combination of the traditional media ads along with trendy internet styles that can increase brand recall. In today's Internet advertising there are numerous website designed to promote sales and to maintain relationship with customers, so the target audience can make the purchasing decision more efficiently. The opinion about the quality of the website, there is a positive impact, there is a neutral effect on the attitude of the viewers about the online advertising, advertising image, advertising message and brand loyalty gains top three positions regarding the features attracted in online advertising and time saving, easy tool and convenience in using the online advertising for their needs gained the top ranks in factors that are affected on the viewers of online advertising. Hence, on the whole there has been a positive impact on the concept of online advertising among the users of internet.

VIII. FUTURE SCOPE

The future scope of an advertisement management system involves exploring potential advancements, expansions, and adaptations to meet evolving industry trends, technological developments, and user needs. Incorporate advanced AI and machine learning algorithms to enhance ad targeting, optimize campaign performance, and detect fraudulent activities more effectively. This could involve utilizing predictive analytics to anticipate user behavior and personalize ad content in real-time.

Develop more robust automation features and optimization tools to streamline campaign management processes further. This could include automated bidding strategies, dynamic ad creative generation, and automated performance analysis and reporting. Expand the advertisement management system to support cross-channel advertising campaigns across multiple platforms and channels, including social media, search engines, display networks, and mobile advertising. Provide seamless integration and unified reporting for comprehensive campaign management.

Invest in advanced data analytics capabilities to provide advertisers with deeper insights into campaign performance, audience behavior, and market trends. Implement advanced data visualization techniques and predictive modeling to facilitate data-driven decision-making.

Focus on enhancing personalization capabilities to deliver more relevant and engaging ad experiences to users. Explore contextual targeting strategies based on real-time contextual signals such as location, device type, and browsing context to improve ad relevance and effectiveness. Explore opportunities to leverage emerging technologies such as AR and VR to create immersive and interactive advertising experiences. Develop innovative ad formats that capitalize on the unique capabilities of AR and VR platforms to capture user attention and drive engagement.

Stay abreast of evolving privacy regulations and implement robust privacy and compliance solutions to protect user data and ensure regulatory compliance. Invest in technologies such as differential privacy and federated learning to preserve user privacy while still enabling effective ad targeting and measurement.

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