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FORM ONLINE TO ON-CLOUD: THE SOCIOLOGICAL CRITICISM OF ONLINE TARGETED ADVERTISING

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ABSTRACT

As a kind of information diffusing channel, online targeted advertising, which can accurately deliver the commercial information to the audiences from specific hobbies and interests, actual demand and attitude of tendency by analyzing the trail of their internet using, shows an obvious effect. Meanwhile, with the development of the concept and technology of the CLOUD, more comprehensive and accurate data analysis of targeted advertising has been made into practice. This research makes a calm thinking on the online targeted advertising from the focus of criticism. It expounds the protection of individual privacy from the focus of public sphere constructing, the advantages and disadvantages of consumerism from the focus of cultural study and the construction of political, economic and cultural system in benign society from the focus of Political Economy of Communication. At last, under focus of cultural imperialism, the research expounds issues of online targeted advertising in the area of international economic development and intercultural communication. All these works are based on the expectation of the balance between the commercial logic and cultural logic.

Keywords: online targeted advertising, communicating effect, sociological criticism.

Advertisement is the product of commercial logic and it plays a very important role in the development of commodity society. The prosperity and improvement of advertising industry represent the achievement of economic development, and also the level of social productivity. The development of advertisement is tightly connected with the development of mass communication media. Every significant revolution of media in human history would lead the major breakthrough of information communication. From tying knots to beacon-fire, printing to radio, broadcast to internet, the speed and coverage of information spreading always had a tremendous enhancement. As a kind of special information form, advertisement also keeps a huge changing with the development of mass media, from inherent means of expression to information carrier, then to communication strategy and technique of originality.

In the developing process of advertisement industry, the most concerned issue of practitioners and researchers is the effect of the advertising. "I know half of my advertising expense has been wasted, but unfortunately, I don't know which half it is." This sentence has been the classics of describing the effect of advertising. In order to make the best result of advertising, communication scholars, based on the sociological research methods, did a lot of researching works from the point of psychology and communication, such as bullet theory, inoculation theory and innovation-diffusion theory. Most of Economists do the research from economy principles and marketing strategy. They work out lots of theoretical model and communication strategy on the base of multi-channel consumer investigation and data analysis of information technology.

Based on the deep analysis of huge behavior database of internet search engine users, online targeted advertising makes the one-to-one communication to the certain group of audience into reality by locking on by their hobbies, interests, actual demand and attitude of tendency. Meanwhile, with the development of internet and mobile technology, especially maturity of the concept and application of CLOUD, online, as the latest method of information dissemination, is being substituted by on-cloud which is a completely new mode of advertisement and provides more comprehensive and accurate data analysis for targeted advertisement.

Nevertheless, along with maximized effect for advertising practitioners and benefit for advertisers that targeted advertisement brings, many social problems also come up with the appearance of it, such as protection of individual privacy, flourish of consumerism and surplus of useless information. These problems will make a probabilistic influence to the social politics, economics and culture, also the construction and development of public sphere. Even more, the advertising communication system, based on the far-advanced science and technology and well-developed commercial system, will make a new wave of cultural imperialism.

Consequently, this research, on the focus of criticism, expounds the history and developing stage of nowadays, analyzes the information spreading essence of online targeted advertising under the research methods of political economy of communications and cultural imperialism. Based on the benign development of society and culture, some advices are also given to the advertising practitioners when they make the targeted advertisement.

THE HISTORY, CURRENT CONDITIONS AND DEVELOPING TENDENCY OF ONLINE TARGETED ADVERTISING

History: Lock the Demand of Audiences Accurately

Making a general survey of the information spreading history of human society, we realize that the purpose of media dissemination is to enlarge the coverage of information spreading as large as possible so that more and more audiences could receive it. The development of mass media is also following this purpose. With the developing of hundred years, some of the media become the "mass media" with a great power of influence. Newspaper, radio, television and internet are the main news information spreading media of them. Although advertisers hope more and more people could receive the advertising information, but different from the news, advertisement does not rely on "mass" very much. The advertisers are always thinking the relationship of advertising cost and effect. Any advertisement of any product has a specific target consumer group which is hiding in mass and can be recognized by some features, such as gender, age, location, culture, knowledge and so on. The advertisers, who are high on spreading the advertisement as wide as possible, recognize that the costs of the ad waste a lot, even all. So, advertising agencies and scholars begin to attempt substituting the mass by those who are suitable for the products. That is minority diffusion.

Media vehicle is an interesting word in the advertising research. It means the particular form in the media, such as a specific program on a TV channel or a specific page of a newspaper. Every vehicle has different coverage and audience, of course also different price and style. The advertisers always choose the vehicle which has the same or similar positioning with their products. For example, luxury or automobile always choose quality newspapers, athletic equipment will choose sports channel and the brands positioned on mid-age ladies will choose popular teleplays.

Direct mail advertising is another popular form of minority diffusion advertisement. It is defined as the direct advertising that advertisers print the commercial information as the mail or other forms of propaganda and post to the people who might be consumers. It is delivered by the post network and always includes the form of booklets, brochures, catalogs and sales letters. Direct mail advertising is provided with the function of information spreading and also with the features of accurate market positioning, strong pertinence, high timeliness, obvious individuation and good confidentiality. In 1998, 39.2 billion dollars was put into commercial mailing and direct mail advertising, along with television, became the second big advertisement media in United States [9].

Online: Technology and Effect of Targeted Advertising

Targeted advertising judges the people's preference and power of consumption by collecting their information and makes the personalized advertisement combination for single people [16]. Online targeted advertising could automatically deliver the commercial information to the periphery of similar content on the webpage according by user's demands or preference, location, accessing history and other information. Advertiser could dig the data of user's information, relationship and online behavior, search and analysis the content of webpage by semantic matching system, and tracking user's behavior through monitoring system. And then, they could filtrate the attribute of different users and make an accurate web advertising exhibition. This makes user's demands directly docking with the ad supply and gives a full play to the effect of web advertising.

Online advertising targeting technology includes two main aspects, rule-based targeting and model-based targeting. Rule-based targeting is doing Boolean Search in the advertising database according user's attribute information and gets the advertisement suitable for the rules. It can be divided into demographic targeting and geographic targeting. Model-based targeting is the technology of framing the ad matching model, which is aimed at information of user's behavior and network environment and confirming the percentage of all the information according by different algorithm. The model can help advertiser choosing the most matched ads in the advertising database. Model-based targeting includes behavioral targeting, retargeting and contextual targeting [19].

The influence factor to the effect of online targeting advertising can be reduced into website point, advertising point and audience point. Website point means the reputation. It is the audiences' psychological acceptance level to the website from the point of popularity and reputation. Advertising point includes the vitality, information of background and purchasing, etc. No matter the content or modality, every element of the advertisement will influence the effect of spreading. Audience point mainly focus on the individual privacy. Some scholars claim that the reputation of the website will not influence the psychological effect of behavioral targeting advertisement, but background information, purchasing information and vitality will, on some level. Purchasing information will not influence the motion of user but privacy focusing will lead negative effects to the result behavioral targeting advertisement.

On-Cloud: Development Tendency of Targeting Advertising in the Time of Mobile Network on Cloud-Computing

With the development of mobile network devices, mobile media has become an important part of our daily life, and many advertisers also pay close attention on this new media of advertising. Mobile devices are eager to get the equal information with the less computational capabilities, so cloud appears. Cloud is always understood as the interaction of information technology infrastructure and pattern of utilization, or delivering and using pattern of services. It also means a lot to targeting advertising. Cloud computing model of services' increasing, using and delivering based on internet. It always refers to providing dynamic extended virtualized resources via internet. According to Prof. Liu Peng, Deputy Director and secretary general of China Cloud Computing Expert Advisory Committee, cloud computing is the service of providing a kind of cheap elastic distributed

calculating capability [2].

The information contact behaviors of using cell or tablet are completely different from using newspapers, broadcast and television. The individuality is more evident. Compared with using computer, the feature of privacy and the increasing rate of using are more obvious. So, based on more enormous data analyzing devices, the effect of targeted advertising will be more remarkable. This is becoming an important development tendency of online targeted advertising.

ONLINE TARGETED ADVERTISING UNDER THE FOCUS OF CRITICISM

Destruction of Individual Privacy: Targeted Advertising and Framing of Public Sphere

In order to pursue the maximization of advertisement effect, in the process of behavioral targeting, the advertisers collect mass of user's behavior information, and this may be an invasion of audience's privacy. More important, whatever the audiences use, computers or mobile devices, this kind of invasions are always unconscious. The information of individual privacy is stolen by advertisers in an oversimplified and crude way while the audiences do not have any consciousness. Maybe the exposures of some basic information which advertisers are bound up in collecting, such like age, gender, education background, profession and hobbies, are not a big deal for normal person. But, the contacting behavior to internet and mobile devices, which is completely different from traditional media, is always presenting the features with more individualization. The family members or some other related people are always listen to the radio or watching the television together, but surfing the internet via computer or mobile devices is always an individual behavior. That means privacy is more important for the users of internet computer and mobile devices. Meanwhile, audiences of internet media are also have the feature of anonymity, so they may expose some sensitive information, like sexual preference, special hobbies and viewpoint of politics, religions or nationalities, when they access the internet. The exposures of this kind of information may get them into big troubles.

With the development of society, especially the establishment of information society, the problems of individual privacy in public sphere cause the anxiousness of all the people day by day. In the focus of criticism, public and private sphere, which blended tightly together, cannot be split into two single parts simply. The gathering of private sphere makes the important part of public sphere. For the framing of private sphere cored by protection of individual privacy, destruction made by the maturity of data analysis technology fundamentally affects the framing of public sphere.

Nowadays, digital technology is highly developed. Popularization of mobile devices with cloud computing technology and benefit forced advertisers with the commercial logic make the collecting, storing, analyzing and spreading of the information very easy. Collecting and analyzing the information with advanced technology may still make the new threats to the individual privacy although they have existed in the public sphere and been permitted to share. The classifying and analyzing to the fragmentized sharing information which scatter in different part of public sphere can still reveal many aspects of people's life, even approaching the privacy of people [10].

In the research of privacy, there is a famous story. Once in a party, someone asked priest whether he heard some special stories in the confessionary. The priest said his first confessor came for a murdering. A few minutes later, an elegant gentleman joined the party and presented his compliments to the priest warmly. When someone asked him how he knew the priest, he said that he was the first confessor of this priest [14]. Obviously, people got the gentleman's information of privacy if they connect the words of priest and gentleman.

Although the story tells a coincidence, collecting and analyzing of users' individual information, which is the theoretical and technological base of targeting advertising, is worthy to celebrate for advertisers. The crisis of privacy along with this kind of collecting and analyzing has become the problem of framing public sphere. Privacy is a complicated system of specification, expectation and aspiration. It is far beyond the simple cognition that you have no individual privacy if you are standing in public sphere (Solove, 2007).

Helen Nissenbaum detailedly described the forming process of privacy problems in public sphere of information society by giving examples. In public area, maybe every movement of everyone's daily life has been the supervisory objective. People's information are collected, stored, analyzed and shared some time when they communicated with retailers, post offices, medical services, children's care center and even beauty salon. Their locations, distinguishing features and almost all the important events are recorded by the federal, state and local government with due diligence, including birth, marriage, divorce, property, driver's license, vehicle registration, violating driving, bearing and death. You can lock people's name, address and the number of telephone, credit card, social security, and passport and so on. People are described out in detail by the data of their age, hair color, eye color, height, eyesight, post and online purchasing, credit card, travel, working experience, renting experience, real estate transaction, address changing, number of kids, even subscription of magazines. This can be enumerated infinitely [3].

Based on this, we found that the protection of individual privacy in public sphere has become the realistic and objective demand. From the ethical point of view, the reasons of protecting privacy in public sphere are similar to the reason of protecting the traditional privacy, because the values, which have been in danger of invasion to secret area, are also in danger of so many kinds of public supervision. These values are various, including individual values such as autonomy, freedom, individuality, abilities of forming and maintaining consanguinities, mental health, creation and personal growth; and social values such as free and democratic society [10]. So, the harm of targeted advertising, from the huge information collecting and analyzing system to the

individual privacy, has been affected on public sphere.

At the same time of analyzing the effect of targeted advertising in framing public sphere, we have to admit that, with the highly developed economic and technology, the existence and development of online targeted advertising mean so much for the demand of advertiser and commercial logic, even for the demand of products' information for normal people in this commercial community. How can we find a balance between commercial logic and framing of public sphere? This has been an important issue in front of many sociologists and advertising practitioners.

Many scholars and advertising practitioners have given some advices of solving the problems. Some scholars advise that there should be a behavior tracking switch in the browser. When the switch is turned on, the behavior of surfing can be tracked and the advertisement can be delivered. Of course, the users could turn it off when they don't want anybody knowing what he/she does on internet and get the advertising information. Behavior information data also could be entirely opened to all the audiences and allow them delete the information of theirs. For collector and analyzer, some information, like sexual preference, race, religion or other sensitive and private information, can be ignored in the process of establishing and maintaining of users' information model to protect privacy. On the level of information acceptance of audiences, the media, which may be contacted by the targeted audiences initiatively, can be considered. Most of the people don't like the information which comes out automatically and is accepted passively without any choice. But the situation is completely different when they search the information initiatively. For example, if the products advertisements come out when the audiences browse the website of amazon.com or ebay.com, they may click the link and look for more details. But if it appears when the audiences browse the news or play games, what the advertisement lead out will just be negative influences.

Flourish of Consumerism: Online Targeted Advertising Under the Focus of Cultural Study

Commodity circulation and value creation play a very important role in the development of human society. Well-developed commercial system will make an infinite acceleration for the development of productivity. In the commercial system, marketing is the segment with typical significance and it is one of the basic levels of making commodity circulation and commercial system efficiently functioning. In the concept of marketing, advertisement takes an important part of being the bridge in information communications. With this significance, online targeted advertising, which can make a maximization of advertising effect, has the extraordinary meaning.

However, the flourish of consumerism is the inexorable outcome of development of commercial system. Consumerism is a social and economic order and ideology that encourages the purchase of goods and services in ever-greater amounts. In the criticism research, the points of cultural study on consumerism are representative. Cultural study, combined with sociology, literature theory, media study and cultural anthropology, put the attention on cultural phenomenon in the industrial society. Cultural study researchers always focus on how a phenomenon connects with ideology, race, gender or social class [11].

From the view of cultural study, consumerism is considered as an activity form of gaining joviality. It is one of the projects that people dispose the relationship of products and person under the precondition of material abundance. The word of consume is not only the concept of demand and satisfaction to products in the theory of traditional political economy, but also the relationship between person and products. Jean Baudrillard, in his work *The Consumer Society: Myths and Structures*, considered that consumption structured the internal logic of capitalism society, including the point of that everyone is equal in front of commodity consumption; consumption is reflected in not only the substance, but also the cultural meaning; consumption represents individual status; the things we consumed is not the use value of products and services, but the meaning of symbolism (Baudrillard, 1970).

The consumption idea has been unconsciously influenced by the consciousness of consumerism culture. This makes a group of people who have a certain ability of consuming turning their consumerism value reflecting in the behavior of purchasing. But the people who cannot afford high level of consumption also have some tendency of consumerism. Conceptional consumerism means person cannot afford high level of consumption because of the limitation of economic condition but he/she chase or imitate the lifestyle of consumerism, even pursuing the mental or ideal consumption beyond the ability of consuming or depress the satisfaction of other basic demand.

The youth groups in the city are the main receivers of conceptional consumerism. They ideally agree with the value orientation and lifestyle of consumerism, and advocate extravagant life and so called individuality. They always connect luxury brand with refined taste and high consumption with maverick life. Coincidentally, in China and some developing countries such as China (even some developed countries), the target-consumers of online advertising are these groups of youth, who are the main users of internet and mobile devices in these countries. According to mass of news report, we can find that many young people, who earn not so much, always buy some fashionable products with credit cards, no matter it is useful or not. Even the middle class in some developed countries cannot afford these products. Therefore, what we see is that traditional concept of frugalness is replacing by the concept of proper luxury and overdraft. But under the frame of traditional culture and system of active institution, it is totally different from the consumption view of zero deposit and high-range overdraft. This is a new consciousness of consumer culture, which is different from both traditional idea and western consumption concept.

No matter advertisers or sociologists should have to envisage this problem. How can we avoid excessive consumerism make an

undesirable influence to the social culture? We consider that, besides improving advertisers' awareness of social responsibility, supervision of social institution and overall quality of consumers, keeping the quantity and quality of advertising information delivering with a certain balance may be a better choice.

For advertisers, the most important thing is finding the exact consumers. This can tremendously save the cost of delivering and make the maximization of effects. The concept of exact means not only the group of people with purchasing desire, but also the ability. Making the vehicle brand as an example, it doesn't matter they can afford or not, the zeal of automobile amateurs to Ferrari and Lamborghini are all the same, but the advertisement of these brands cannot make an equal effect to all these people. Oppositely, some people may overdraw their credit cards, even do something illegal, to make their dream into fact. This dream is the thing that advertiser create.

As a result, we consider, to avoid the flourish of consumerism, more attention should be paid on the analysis of purchasing ability of single consumers and deliver the advertisement as their actual demand in order to save the cost of and make the maximization of effects when we do the online targeted advertising delivering.

The Contradiction Between Advertising Demands of Vulnerable Groups and Technical Barrier: Online Targeted Advertising Under the Focus of Political Economy of Communications

Advertisement is the basic reflection of commodity logic under the capitalism economic system. In every section of economy, advertisement takes an important function of information spreading and exchanging. Online targeted advertising, as the most effective and efficient form, has a very positive meaning no matter for producers or consumers.

Therefore, lots of researches manifest that high developed commercial society cannot always be positive to everyone's life. Obviously, as the advertisers, who master a mint of money and other material force, will freely spread the thought of their own by controlling the speaking right of mass media. This kind of controlling will influence every aspect of politics, economics and culture of the society. The research of political economy of communications in criticism likes discussing this kind of problems more. The theory of political economy of communications is the typical focus of criticism research. The Critical School is the intellectual combination of the Frankfurt School with the tendency of Marxism and social research [8]. Starting with the research of Fascism's rising, especially the history of radio and television being used by Hitler as propaganda tools, the Frankfurt School rethought and criticized the impact to politics and culture from the combination of communication industry and mass culture under the system of capitalism. Different from traditional Empirical School, which researches and analyzes the developing, operating and changing of media in a relatively closed environment, political economy of communications considers the research of communications have to be in an integrated environment of society because communicating phenomenon ineluctably has a close relationship with social political and economic system.

Political economy of communications mainly focuses on social change and historical transformation. Commercialization, spatialization and structuralization are the main research path of it. Commercialization is process of transforming use value into exchange value. It makes following effects to the communications: first, communicating process and technology make a positive effect to the process of commercialization; second, commercialization process has been infiltrated into the process and system of communications and influence to communicating practice. Then, the globalization of media products and collectivization of communicating industry make the communications spatialized. Spatialization makes communicating technology taking a core position. Structuralization means the forming process by social dynamic forces. More specifically, even though structuralization is the media which is needed in framing process, it is still accomplished by those dynamic forces. The results of structuralization are the establishment of social relationship and power, around the issues as class, gender, race and social movement, etc [15].

The delivery of online targeted advertising, to a great extent, represents the relative aspects which can affect social relationship and power in the capitalism commercial logic. It is mainly reflected in following two levels:

First, internet is born with high-tech attributes. Technical barrier caused by it cannot be ignored. Technical barrier may not be the problem in developed countries, but it is ubiquitous in China and many developing countries. The people who can use computer and mobile devices skillfully are always the group with at least middle level of education and knowledge. The delivery of online targeted advertising based on the internet accessing behavior data analysis of these groups of people will certainly ignore the advertising information demand of many vulnerable groups, which seldom use internet because of lower education level. Deeply, appearance of vulnerable groups in developing countries is caused by the imbalance of education resources, which is made by imbalances of economic development. The issue of advertising demand will make this imbalance worse, and finally, it will affect every aspect of social culture.

Second, the audiences of online advertisement, which separates by technical barrier (including price barrier) from the mass, are always the persons with high education, high salary and high social position. But it doesn't mean that normal people and vulnerable groups cannot be brought into the contact with internet and mobile devices. However, if the advertising delivery, which focuses on the three-high persons mentioned above, influences the normal people and vulnerable groups, it may not get any effect from them. Although this kind of effect could reach the level of "changing attitude", the purchasing activity still doesn't happen because of the purchasing power. But, it is hard to observe the cultural influences which could work on those people. If the advertising works on a poor people without positive thought of value, it may bring a strong negative effect to development of social economy and culture.

From Economy to Culture: Online Targeted Advertising and Cultural Imperialism

Besides the influence researching to politics, economy and culture in one society, criticism also analyzes the cross-border and cross-social cultural phenomenon. The most famous theory of them is cultural imperialism. Cultural imperialism could be defined as one country, rely on the advantages of its culture, exploits and occupies the global market of culture. These countries keep their culture in leading position in the world by their advanced science and technology and developed national education.

Cultural imperialism has two main targets. One is economical, the other is political. Economically, it is a market exploration for their cultural products. Politically, it is the establishment of hegemony by remolding public awareness. The export of entertaining products is the most important source of capital accumulation, and also the method of replacing the export of manufacturing in globe. Cultural imperialism separates people from their traditional culture and unity, replaces by a kind of demand which is made by the mass media and baffling with waves of propagandization.

Online targeted advertising is also deeply seared by cultural imperialism. On the level of advertising information communication, western product advertising information, which is preponderant no matter on quantity or popularity, outdistance far away from domestic brands in most of developing countries in the area of online targeted advertising. Moreover, in technic and channels of communication, in spite of the cultural differences, the media in developing countries can still not struggle against western mighty network media and mobile devices. No matter windows or Mac OS, android or IOS, western products firmly occupy unshakable dominating and monopoly positions. Essentially, originating from developed capitalism countries, thought of online targeted advertising itself is the base of commercial logic and social culture.

Objectively, it is very important of the development of advertising industry. And, it doesn't mean that this development does bring about the invasion of cultural imperialism. The invasion of mighty culture always appears in the advertising delivery of a few transnational enterprises or global brands. But, along with the economic globalization, cultural invasion will show a great power and influence. Nowadays, we find that Coca-Cola, McDonald's and Burger King have changed cuisine culture of China which is used to core with rice and noodles and this may change the consumption view of Chinese step by step.

In order to solve this problem, an efficient social supervision system seems to be very important. By moderating guidance to advertising information communications, a benignant media environment could be established and the indigenous cultures can be reconstructed. Only a strong domestic culture system which can contend against the mighty culture of developed countries will fundamentally avoid the invasion of cultural imperialism.

CONCLUSION

Online targeted advertising, as the most concerned form by society, its connotation and extension are widely studied by many researchers, and effect researches are paid much attention by economists, psychologists, sociologists and scholars of communications. As the accurate delivery of advertising contents based on the analysis of consumer's hobbies, demands and tendencies, the advertising effects are conspicuous. At the same time, along with the maturity of concept and technic of CLOUD, more accurate delivery of Online targeted advertising will be supported by more comprehensive and precise data analysis.

Different from the research by most of the economists and communication scholars of criticism, this research did a calm thinking from the other aspect to online targeted advertising from the view of criticism. Online targeted advertising enhances the effect of advertisement and acquires more benefits but it also brings many social problems, such as destruction of individual privacy protection, flourish of consumerism and information surplus. All these may introduce an indeterminate influence to the social politics, economic, culture and structuring and developing of public sphere. Even more, the high advanced advertising system, which is based on well-developed commercial system and advanced science and technology, will bring a new wave of invasion by cultural imperialism. Therefore, this research expounds the protection of individual privacy from the focus of public sphere constructing, the advantages and disadvantages of consumerism from the focus of cultural study, the construction of political, economic and cultural system in benign society from the focus of Political Economy of Communication and at last the related issues of cross-border economic developing and transcultural exchange from the focus of cultural imperialism. We hope this research can cause the deep consideration of scholars on negative influences of online targeted advertising. The construction of social culture should be paid more attention while maximizing the effect and benefits of online targeted advertising. The balance of commercial logic and cultural logic is the balance of economic benefit and social benefit.

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