



Problematizing the Value of *Prosumer* data in Digital Advertising

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Abstract:

The paper looks at the concept of prosumption that is formulated by the Italian autonomist school in order to theorise the contribution of user generated data in the digital economy. The paper takes David Smythe's contribution to theorise the role of television audiences from the Marxist political economy framework as the point of entry.

Keywords - Prosumption, User data, Advertising

"If the exemplary product of institutionalised mass media is propaganda, the exemplary product of mass self-communication is data". (Couldry and Powell 2014: 4)

Introduction:

Every electronic transaction, whether virtual on the internet or real, generates data. Corporations have been collecting this data for a long time (with the traditional forms articulated by Taylor's principles of scientific management in early 20th century). The recent surge in data analytics is a by-product of increasing digitization of devices as well the capacity to store and analyse the databases. Most of the critical scholarship about data collection strategies and its implications have been related to the online digital economy. Digital economy presents an optimum area where nearly all activities of the users produce data, and thus a potential source of value. In this article we look into some of the ways in which data is used to market the products through online advertisements more efficiently. Before that we start by looking at the implications of data mining practices in the real, physical world so that we can problematise certain assumptions and insights in the virtual, online world in our analysis.

Retail industry has a long tradition of collecting the data on its consumers to analyse their shopping behaviour as well as keep a record of their sales. As far back as early 1990's WalMart, the largest global retail chain, has been collecting customer data. Even with premature computational techniques, it used the data to make decisions related to sales and procurement. Today, WalMart processes 2.5 petabytes of data related to all its activities *every hour* (Marr 2017). The transactional database consists of each and every transaction made by the customers and consists of entries based on store location, time of purchase, product purchased, price & details of the product, mode of payment. Collected over a period of time, the data

gives a detailed view of each transaction made by a customer historically, as well as transactions happening at different spatial levels – store, city, region, country, world-wide. Data analysis involves categorising the data according to the needs of the department for which analysis is being done (sales, marketing, procurement, inventory management). Insights are generated to take decisions by respective teams at different levels related to inventory, procurement, sales efficiency, rewarding employees, gauging competition. Broadly two types of insights are generated from the analysis: (1) Descriptive: which provide the current statistics, past trends and (2) Prescriptive: which provide predictions about the future trends, sales. This is a preliminary illustration of the data analysis of the data collected from the customers' end, what is called transactional data. Similarly, data is collected by other teams which are involved in procurement, tracking shipments and inventory for their own internal management purposes. We now consider the online economy to look for the continuities and breaks in the data collection strategies.

In the case of an e-retail website, online users produce data at a more comprehensive and exhaustive level. In addition to the actual shopping behaviour, the browsing behaviour as well is made commensurable. Not just the final act of buying but even the intermediate steps of showing interest in a particular item or deciding on one kind of product after making comparisons to several others are captured through click streams. Search history, click history and other metrics of browsing behaviour can all be tracked as the users leave a trail of data behind every action they do online, including the 'action' of not doing anything. These actions show the interests or proclivities of the users, a central variable for

behavioural economics. A detailed profile of user's interests and behaviour is tracked for future insights on the particular customer, and through her on the market or segment on the whole. With segmentation the users can be divided into separate categories – segments – which might be targeted differently. This also helps in reducing the advertising budget of the advertisers who use data analysis to send ads only to customers who might be more inclined towards buying their product.

It should be noted that data here is not collected in a digital vacuum but the user is already in an online data assemblage where she is acted upon by the data previously collected. This means that as soon as the user registers on a website, the metadata extracted from her device can still be used to make patterns with other similar users. There need not be anything like a 'new user' as far as the website is concerned. Users are always already part of the algorithmic rules which locate them in their databases. The process only gets more sophisticated as more users register and give away their data. Online recommendations are the best example of this. The user is recommended products based on the insights generated by analysing past consumer behaviour. In fact recommendations account for almost 30% of all sales for Amazon (Cuckier and Schonberger 2012).

Advertising and Blindspot debate

Social media companies are the purveyors of the largest data troves relating to demographics and behaviour. Their production cycle is largely based on showing advertisements to users who use their services. The success of a social media company depends on the number of users it has, the time they spend on these services, their level of engagement with these services. These factors are used to attract the advertisers to the websites or application services such that the users act as the commodity in the transaction between the social media company and the advertisers. We consider the role of advertising from a Marxist framework by briefly discussing a similar debate from the late 1970's and early 1980's concerning advertisements on television. David Smythe contended that the focus of Western Marxism vis-a-vis cultural and media industries has been on the interpretation of signs and symbols and the subsequent production of ideology by them (Smythe 1977). The lack of analysis of the economic function of these industries represented a 'blindspot' in Western Marxism. Smythe contended that audiences were lured into watching the content on television in lieu of the advertisements that were shown to them.

The audiences were thus the commodities that the media industries as content producers sold to the advertisers. The audience reproduced their labour power in their free time by watching TV while also learning to buy the products from the

advertisers – the producers of commodities in the economy. The TV content teaches them how to reproduce their labour power in this way. Even the leisure time of the audiences gets alienated from them with all time becoming productive time. Livant and Jhully added that the audiences were spending a necessary watching time which was the time required to generate enough revenue from the advertisers to produce the content, as well as an extra, surplus watching time which was the extra time spent that generated the surplus for the content producers (Jhally & Livant 1986: 4). The value of time spent on watching was different for particular audiences which depended on the demographic details of those particular audiences such that special groups like audiences watching a sports event would command a higher advertising price. For Livant and Jhully the audiences were working for the content producers (the media industry) while for Smythe they were working for the advertisers. Both views agreed the basic formulation that the audiences were indeed working. Meehan added to this framework by bringing in the role played by market research firms in audience measurement which produced ratings for the industry (Meehan 1984). These viewer ratings were used by the advertisers to check the effectiveness of their campaigns as well as by the media industries to fix a price for the advertisement slots. Since these ratings were the entities used to decide the value of the audiences Meehan suggested that ratings, rather than the audiences, were the commodities.

The audiences were segmented into different demographics such that the prices of advertisements were fixed on the basis of who was watching. While these scholars underline the economic role of the media industry which was increasingly getting concentrated in a few conglomerates, they do not reject the ideology producing functions of the media. Looking at the history of methodological tools used to measure the audiences by the broadcasting industry since the 1940's to the digital industry today, Bermejo (2009) has noted the certain changes in audience measurement. While the basic function played by advertising as the economic stage where demand is produced has not changed, there have been changes in the way the value obtained from advertising is measured. In addition to the time spent on watching advertisements, the actions of online users (clicking, typing searches) have come to constitute work (Bermejo 2009: 149). In fact with the internet, especially the Web 2.0 applications, we see complexities added into the framework of the audience commodity and the exchange between advertising & media companies. Most important of these is the changing nature of the participation of users. While with respect to the television the audiences were passive consumers of the content,

the online users in addition are active producers as well. This has led to the conception of ‘internet prosumer commodity’ and notions of users being exploited as they provide free labour for the production of surplus value generated by the advertisements.

Prosumption

The term ‘prosumer’ was first described by Alvin Toffler in his work *The Third Wave* (1980) to describe the increasing role of consumers in realising the economic value of commodities (Hesmondhalgh 2010: 268). Since the consumers were more readily asked to perform economic activities earlier performed by paid labour (filling petrol on fuel stations, shopping for groceries, service at restaurants) the organisers of capital were able to extract more surplus value. These roles were accepted by the consumers either because they were incentivised economically by a reduction in the prices of commodities or because the roles were framed in terms of a more participatory, and thus less alienating consumer culture (Humphreys and Grayson 2008: 971). This concept has been taken up by the media and communication studies scholars to describe the relations in the online economy along with other similar conceptualisations like play labour or playbor, co-production, notions of ‘gift’ in the online (gift) economy. Prosumption considers the binary distinction between production and consumption as becoming increasingly blurred under late capitalism. While the Marxist analysis gave precedence to the sphere of production, the Baudillardian tradition focused primarily on consumption side (ibid. : 966). In the context of digital economy, the concept is useful because it shows the dual function of the online user. A typical Web 2.0 internet service is based on collaborative forms of content creation (videos, blogs, discussion forums, chat groups, newsletters). Here the user consumes the content produced by other users in the community as well as produces her own content to be used by others. The platform owners / service providers extract surplus value from this interaction / exchange between groups of users. Web services like Facebook, Instagram, Youtube, Reddit, Wikipedia rely completely on the user generated content for the functioning of their businesses. Users are encouraged to produce more content by sharing their personal lives, ideas, interests, art with the network. The service is provided either for free or for a small subscription fee or is based on a ‘freemium’ model (where the basic service is free but additional services are charged). In return for their use of the service, the users are shown advertisements through which these companies earn their revenue while their data is commodified.

Ritzer and Jurgenson argue that the digital economy shows a trend towards unpaid labour rather than low wages with products and services

offered at low or no costs (Ritzer and Jurgenson 2010). They give examples where the users collaborate in producing content as volunteers (in chat rooms, in translations to other languages, in reporting objectionable content) which show that control and exploitation have changed in character and thus a new source of adding surplus value has been achieved by capitalists (ibid. : 21). In contrast, Terranova suggests that the concept of free labour ‘signals the unfolding of a different (rather than a completely new) logic of value’ (Terranova 2000: 35). The author uses the conception of ‘immaterial labour’ (Lazarrato 1996) to look at the affective and creative desires – real even if socially constructed – which are satisfied by participating in the production of content in the digital economy. These desires are commodified by ‘the current capitalist emphasis on information and knowledge as the main source of value addition’ (Terranova 2000: 36). Similarly Christian Fuchs has noted that the online users, as internet prosumer commodity following Smythe’s audience commodity, are exploited as they are not paid anything for the surplus value they generate for the social media companies (Fuchs 2010). Fuchs has shown that the time spent by users online actually contribute proportionally to the surplus value generated through advertisements and the user data collected. Thus the transactional data produced by the users is used indirectly to produce value. The demographic details of the users are used to show ‘targeted advertisements’ to the users. The advertisers bid on specific keywords for showing advertisements to specific users whose behaviour, interests, income levels are gauged by using the data collected by the social media websites. This is producing surplus value through economic surveillance.

Most activities done by the consumers help in realising the use value of the product for themselves. But it is only when the consumers also create an exchange value that the line between producers and consumers begin to blur (Humphreys and Grayson 2008). For Caraway, the application of labour theory of value to formulate conceptions of free labour undermine the political utility of Marxist theory (Caraway 2016). The notion of free labour overlooks the working class subjectivity and undervalues its agency. Value is created in social media applications through the provision of goods and services by advertisers, market research firms and media producers. The unwaged work of user contributes only in lowering the cost of labour and the means of production to capital. He describes various acts of resistance (ad filtering software, VPNs, fake profiles, and other more organised forms of sabotage) through which the efforts of the web based companies are regularly disrupted. Moreover, the efficiency of advertising as being able to distribute or increase demand is closely

related to contingencies like total number of buyers, income levels, price of substitute products – all of which are terrains of worker struggles for increase in wages and financial security. Revenues from advertising are also not the main source of profit for these companies. They earn financial rents from the valuation of their stock price on the financial market. Here we can notice that the main source of surplus value comes from the importance given to creating brands and affective value rather than manufacturing and selling products, a feature distinctly seen under formulations of late capitalism (Arvidsson & Colleoni 2012).

Cockayne notes that presumption of data might neither directly lead to the realisation of the exchange value nor be used for increasing the speculative value of the service on the stock market (Cockayne 2016). ‘Authoritative’ accounts of social media companies like Facebook and Twitter might not capture this nuance which is why the author takes on the case of newly launched social media start-up companies. In such ‘not-yet-successful, failing or failed firms’, the exchange value of data is not realised since no revenue is generated and the use value of the data is ambiguous since the volume of data is low. Such data cannot qualify as a commodity in a Marxist sense. Yet the data collected by the firms are used to raise capital (through presentations to venture capitalists or in start-up conferences’ sales pitches) as it shows the attention capturing capacity of these firms. This data stands as a proxy for the user retention capacity of the service and thus, the affective attachment of the user to the service – her willingness to return to the service - effectively promising continuous data capture in the future as well. In such early stages, presumption ‘is not indicative of production in a Marxist sense, but is an initial orientation toward a working yet unremunerated activity that might provide revenue in the future’ (ibid. : 8). It is also interesting to note that presumption activities are valued, and thus need to be categorised as, differently based on the data collection strategies of the firms even when similar data is collected from the users. Barreneche and Wilken (2015) compare such data collection strategies of Google and Foursquare, both of which collect similar geo location data but which gets conceptualised differently based on the logic of profit generation unique to each. Each interprets the geo location data differently (as place identifier and as venue identifier respectively for Google and Four Square) leading to distinct ‘place ontologies’ and possible future actions of economic optimisation (IBID.: 389). Thus the control of what to do with the data (as raw material) depends more on the organisers of capital than the users in this case.

Conclusion

It is our understanding that there is an important lacuna in which the transaction data is conceptualised. Even if the user is considered as working for the media companies, the data that she creates by her online activities is considered to be part of her contribution to the surplus value. But this data cannot be taken as a commodity which is produced by the user with her labour. The data produced might not be in a raw form per se (Gitelman 2013), but needs to be processed nonetheless. This processing of data takes place by the data analytics teams that have come to be increasingly employed to make sense of the data. It is the labour of these workers that transforms the data into a commodity. It is not the free labour of the users who produce this data. This can be seen in the example of the physical retail store where data was collected from the customer buying goods in the aisles of stores. We cannot say that the customer is also working in producing that data at the point of sale. The insights that can be generated depend on the use value that is generated from the data, which is through the work of the data analysts.

Comments

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