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I. INTRODUCTION

It is not surprising how much attention has been given to the digital economy over the past decade, especially to online advertising platforms ("OAPs").[2] However, despite the vast economic, legal, and even sociological literature on the topic, some aspects of the discussion remain insufficiently theorized. One such aspect is antitrust law's insertion into the debate. Thankfully, that trend is now slowly being reversed. My intention in this article is to contribute to this trend, by briefly outlining aspects of the OAP discourse that should be taken into consideration by antitrust authorities in their decision-making processes.

II. THE PROBLEMS WITH THE TWO-SIDED PLATFORM MODEL

The first studies regarding online platforms and antitrust were conducted by economists who advanced the now famous and well-established two-sided platform model.[3] Researchers started describing all online platforms according to this model, originally developed to explain transactions such as those in the credit card industry. These efforts were, and still are, extremely relevant for antitrust analysis. However, the multi-sided model has been stretched too far. Treating online platforms as two-sided in all cases does not yield the best possible results for antitrust analysis and, as such, one should question whether continuing to apply it without qualification is the most suitable course forward.

Bluntly, the answer is no. There are platforms that fit the two-sided model poorly and whose antitrust analysis could thus profit from a different framework. One such alternative model was presented in 2013 by Giacomo Luchetta in his article *Is Google a Two-Sided Platform?*[4] According to Luchetta, what Google does—and, in my view, several other OAPs including Facebook do—is not part of a single market structure, as is the case in traditional multi-sided

[1] Legal assistant of the President of the Brazilian Antitrust Authority (CADE). Any and all opinions set out in this article are my own and do not reflect an official position of CADE.

[2] The definition of an online advertising platform is purposefully broad: I take an online advertising platform ("OAP") to be any online platform whose profit depends on advertising.

[3] This economic model is obviously far more detailed and complex. For an overreaching approach on the propositions and specifics of two-sided markets, *see* Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: an overview,* FRB ATLANTA (March 21, 2004), *available at* https://frbatlanta.org/filelegacydocs/ep_rochetover.pdf, last accessed February 9, 2015. In brief, one could say two-sided platforms, according to these authors, function by bringing together two groups of consumers that would otherwise be left apart. More than that, what brings them together is a platform that internalizes externalities produced by both groups. Such internalization would not be possible were it not for the platform, meaning that the groups are dependent not only on each other, but also, and more importantly, on the platform.

[4] Giacomo Luchetta, *Is The Google Platform a Two-Sided Market?* 10(1) J. COMPETITION L. & ECON. 185-207 (2014).

platforms. Rather Google's platform includes two separate transactions: one downstream, between advertisers and the platform, and another upstream, between the platform and users. Luchetta characterizes this latter transaction as "personal data retailing." The connection between users and advertisers, rather than being dependent, runs from the business options made by OAPs to monetize themselves, not from the intrinsic structure of the platforms, and is not essential for their functioning.

A primary example of this is Ello, an advertisement-free social network that decided to make money in a rather different fashion: by charging users directly for new features introduced on its platform.[5] This revenue model is possible only because, unlike with credit cards where consumers will only be interested in having a card if a wide range of businesses accept them as payment methods, the users accessing OAPs do not need advertisers, they simply tolerate them.

Nonetheless, there is no denying that advertisers and users share a close connection. The upstream market provides the raw material for the downstream market; that is, users provide the platforms with personal data that will later be used to build profiles in order to facilitate behavioral targeting. Still, the key aspect that should be noted is this transaction is not two-, but one-sided. Users provide data. Advertisers provide nothing in return, except advertisement itself.[6]

Assuming this argument is correct, and OAPs are not always well-characterized by a two-sided model, but rather best described as personal data retailers, there remain two questions to be answered, namely (i) how should the limits of that new market model be delineated and (ii) what are the consequences for antitrust.

Regarding the first question on market delineation, the market should be defined not by the use a platform has for individuals (e.g. Facebook and LinkedIn are social networks; Google, Yahoo! and Bing are search engines; Gmail and Hotmail are e-mails providers), but by the use the platform makes of its data collection. All of these companies collect personal information from their users and perceive it as raw material for their advertising businesses. In other words, one must abandon a product-based market definition, as this is unable to capture the complexities of personal data as a product.

Despite offering different functionalities, Google, Facebook, Hotmail, LinkedIn, Yahoo!, Bing, and many others all: (i) count on an upstream user-platform market; (ii) provide

[5] For more on Ello and how the social network functions, *see* Ben Griffin, *What is Ello? A guide to Facebook competitor without adverts*, *available at* http://www.digitalspy.co.uk/tech/feature/a602490/what-is-ello-a-guide-to-facebook-competitor-without-adverts.html#~phdAGEH6s64TvZ, last accessed June 2, 2015.

[6] Although users clearly are beneficial to advertisers (the more users, the more eyeballs, the more brand awareness, and the more chances to sell products), advertisers are, in the best case scenario, irrelevant to users. Advertising is a price users have to pay in order to access the platform, but it is not necessary for them. For a deeper analysis on the value of advertising for users, *see* Scott McCoy, et al., *The Effects of Online Advertising*, Communications of the ACM - Emergency response information systems: emerging trends and technologies 84-88 (March 2007); Chingning Wang, et al., *Understanding Consumers Attitude Towards Advertising*, AMCIS 2002 Proceedings, 1143-1148 (2002); William M. Wielbacher, *How Advertising Affects Consumer,* 43(2) J. ADVERTISING RESEARCH 230-234 (June 2003); and Robert H. Ducoffe, *How Consumers Assess the Value of Advertising,* 17(1) J. CURRENT ISSUES & RESEARCH IN ADVERTISING 1-18 (1995).

advertising space in the downstream market; and (iii) connect these two markets through personal data, by transforming information into raw material. They should, for this reason, be classified as OAPs.

As for the consequences for antitrust, there is a foundational need to recognize that at least part of what is normally considered to be "privacy," notably personal data, has been monetized and is now part of the market. Whether that is desirable or not is another discussion, which I believe to be crucial and must also be part of the agenda. Nonetheless, that specific debate is not essential to my current analysis, simply because my intention is to delineate how externalizations of privacy are already an asset.

III. ANTITRUST MAY BE AFFECTED BY THE PERSONAL DATA RETAIL MODEL IN AT LEAST FOUR WAYS

A. In Relevant Market Definition

Merger analysis is almost always accompanied by relevant market definitions. Such definitions suffer considerable modification once personal data retail is introduced. It no longer makes sense to adopt a user-centered approach and divide OAPs according to the service they provide. Social networks clearly have a very different role to play when compared to e-mail providers or search engines, if the analysis focuses on how these platforms fulfill users' needs.

It is more appropriate to divide OAPs according to how they treat ad space and with whom they compete in regards to advertiser-platform transactions. The consequences of such an approach would be significant. The categorization of some of today's largest web businesses as part of different markets, and therefore not a threat to competition, would need to be revisited. It ceases to be pertinent if Google offers search, Facebook is a social network, and Hotmail an e-mail provider, and, instead, the focus shifts to advertisers' perceptions of these platforms.

B. As a Barrier to Entry

Although it has been said that, when it comes to the internet, "competition is one click away,"[7] this does not seem to be the case in practice. There is reason to believe that personal data has become vital for a company's ability to provide an effective online platform.[8] Such user

[7] Larry Page, one of Google's co-founders, famously used this phrase when referring to FTC's investigation of some of Google's practices.

[8] A long-lasting discussion regarding search engines' functionalities is particularly relevant to entry barriers. Such discussion arose with Microsoft's Bing introduction into the market. Google had been the leader in online search for many years. In 2009, Microsoft released Bing, a platform aimed at competing with the market leader. Bing, however, failed to threat Google's dominant position, which brought about questions regarding Microsoft's ability to develop an equally effective search algorithm without relying on one of Google's biggest advantages: large amounts of data. Google had been in the search market for much longer than Microsoft and, during that time, it gathered a significant amount of information about its users. Could Bing's lack of capacity to develop into a legitimate rival be due to its shortage of personal data? In other words, is Bing simply unable to provide an equally effective search mechanism, and thus attract more users, because Google imposes a barrier to entry in the form of personal data? The appropriate response seems to be negative, since Microsoft, after attempting for years, has reportedly been able to develop a capable engine, as well as gain more space in the market. Still, a definite answer on personal data's precise role within search would require a careful analysis of both Google's and Bing's algorithms, something neither of the companies is likely to agree upon.

information was acquired over time by most of today's leading OAPs; initially without additional cost, as users readily provided this information to websites. If, however, a newcomer decides to compete with established OAPs, it will have to bear a significant cost in order to acquire an equivalent set of information.

C. From the Perspective of the Essential Facility Doctrine

If personal data was ruled to be an essential facility,[9] it could then be understood that databases must be shared among OAPs, which would considerably alter existing market dynamics.

D. Through Vertical Integration

As personal data's prominence has grown, it has given rise to an entirely new set of companies collective known as the "Web Analytics." Adobe Analytics, MixPanel, Google Analytics, and several others are applications focused on collecting information about users' online behavior and giving it meaning, in order to help other firms enhance their business strategies.[10] Such companies have developed an entirely new market, commonly referred to as the tracking industry.[11]

OAPs have demonstrated interest in being vertically integrated with tracking companies; that is aggregating and single-handedly providing a final product, thereby significantly diminishing (or even eliminating) outsourcing.[12] Vertical integration has produced a vast and contradictory body of literature but, controversies aside, excessive integration has long been considered to encourage monopolization and to strengthen market power. These effects can also be verified when it comes to OAPs, and so antitrust authorities should be aware of their existence. They may conclude integration does not pose a threat to competition, but recognizing integration exists is imperative to any well-grounded analysis.

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[9] A full reconstruction of the essential facilities doctrine is outside this article's scope, but it is sufficient to say that the theory is premised on the notion that the holder of an essential facility have a duty to share it with others, including their own competitors.

[10] The group also comprises platforms such as DoubleClick, Xaxis, and Conversant Media, who are responsible for digital advertising offered through tracking and targeting. In Conversant's words: "For decades marketers have dreamed of engaging with each of their customers on an individual basis. Today, thanks to the Conversant Personalization Platform, many of the world's leading brands are engaging with their customers on a profoundly personal level. Our platform offers everything necessary to help you deliver more personalized and individualized communications. What's more, it's designed for flexibility; the level of personalization, data integration, creative development, cross-channel delivery and measurement sophistication are completely up to you."

[11] Tracking companies are not OAPs competitors. They are part of a distinct, although connected, market—one of which online platforms make extensive use—but they do not provide services for OAPs alone. A company interested in obtaining information about users who visit its homepage can very well contract a tracking company's service, in order to potentialize sales of its products, and this company need not be an OAP.

[12] The finest example on that regard is the Google/DoubleClick merger, which took place in 2007 and was submitted to several antitrust authorities, including the U.S. Federal Trade Commission, the European Commission, and CADE. It regarded the acquisition of an ad serving tool (or third party ad server), DoubleClick, by Google, the leading search engine in all three jurisdictions.

IV. TWO ILLUSTRATIVE BRAZILIAN CASES

The discussion outlined above is relevant for all jurisdictions that, despite legal and procedural differences (including regarding the understanding of antitrust regulation itself), face similar challenges in their day-to-day application of the law, especially in a field as globalized as the digital economy. Nonetheless, I would like to emphasize some aspects of the debate in Brazil, notably putting forward a brief description of two cases, both of which specifically dealt with the issue of personal data retail, as a means of reinforcing my previous understanding of this market and the aforementioned effects it has on authorities' decisions.

The two cases judged by CADE (from the Portuguese acronym for the Brazilian Administrative Council for Economic Defense) are business agreements[13] involving Phorm Ltda., the Brazilian branch of Phorm Inc., with each of the telecommunications groups Oi and Telefónica. CADE approved both without imposing any restrictions.[14] In both instances, Phorm intended to offer the companies its "Navigator" product, a tool installed in browsers that is capable of monitoring online activities in order to select advertisement compatible with users' interests, as well as its Open Internet Exchange ("OIX"), the product responsible for presenting the selected ads. The operations would involve vertical integration, for Phorm would control both the raw material needed for behavioral targeting (personal data) and the channels through which advertisement could be distributed.

The argument put forward by Phorm in order to justify integration was straight-forward: despite concentration, users' experience would be enhanced. The problem with that line of thought is it assumes advertisement is useful for users, which is frequently not the case.[15,16] The more plausible defense argues that online advertisement is a rather fragmented market, and therefore the transaction would be unable to harm competition.

A. Phorm/OI

CADE's decision regarding the first case, involving Phorm and Oi, highlights the following aspects: (i) the position Phorm would occupy due to its partnership with Oi follows from Oi's established market, meaning Oi could engage in the same behavior even without Phorm's participation; (ii) Oi's market share is not significant, and there are other significant players to be considered in the internet access market, namely NET and Telefónica; (iii) there is no assurance regarding the effectiveness of databases in mapping users' commercial interests;

[13] Business agreements can be referred to as a merger in Brazil, depending on their resemblance to an M&A description.

[14] The mergers are cases 08012.003107/2010-62 and 08012.010585/2010-29.

[15] My goal is not to delve deeper in advertising usefulness, but numerous research has been conducted on the topic. One worth-mentioning reference is Hairon Li, et al, *Measuring the Intrusiveness of Advertisements: Scale Development and Validation.* 31(2) J. ADVERTISING 37-47 (2002). More than once, research has concluded users find advertising annoying. Studies on web advertising include Ruth Rettie, et al., *Does Internet Advertising Alienate Users?* Academy of Marketing (AM) Annual Conference 2001 Kingston Business School, 7 (2001), who conclude "Internet advertising annoys many consumers. (...) As users become more experienced, Internet advertising becomes more annoying, so that we should expect annoyance, and consequently click-through to increase."

[16] One other argument that strengthens this claim is the use of ad-blockers, which, once installed in a user's computer, prevent advertising from being featured on webpages. The most popular ad-blocker today, Adblock Plus, has over 200 million downloads and over 18 million average users.

and (iv) online advertising is itself a market heavily dominated by Google, which means Phorm would be unable to exercise any significant anticompetitive influence in it.

I believe it is reasonable to assume these conclusions would be different if the market analyzed was not solely that of online advertising, but rather included personal data retail. I certainly cannot predict what the precise outcome would have been, for CADE's investigation might have taken a different path altogether, but it is likely some aspects of the case would have been looked at in a different light.

First, there would have been a higher level of scrutiny with regard to databases. In this scenario, the conclusions regarding Oi's market power could be different. Phorm would probably not leverage Oi's position in online advertising to the point of hindering competition, but from that assumption one cannot immediately conclude there would be no barrier to entry, nor that vertical integration would be absent. If personal data is an asset essential to online advertising, one would have to first analyze what Oi's and Phorm's dominion of such asset was before establishing whether or not a partnership between the two firms could endanger competition.[17]

Second, privacy would become more palatable to the antitrust authority, because it would be perceived as a legitimate raw material, a category CADE would be more comfortable with then that of fundamental rights.

Third, reinforcing information retention as a non-conclusive tool for mapping users' interests might be a naïve approach. There is enough evidence of the contrary to establish it as a legitimate antitrust concern when connected to personal data acquisition. If companies wish to convince authorities otherwise, they should be the ones with the burden of proof.

B. Phorm/Telefónica

In the second case, between Phorm and Telefónica, the discussion was virtually the same, but one aspect called the Commissioners' attention: Considering the previous operation between Phorm and Oi, this could be an opportunity for Oi and Telefónica to merge part of their activities using Phorm's product. In that sense, however, Commissioner Ricardo Machado Ruiz said the partnership should be allowed, for "there are not enough arguments that render it possible to analyze this AC [from the Portuguese acronym for concentration act] as the conjunction of Oi's and Telefónica's market share in the broadband market." He understood there was no direct communication between Oi and Telefónica, and therefore the transaction should be approved.

Councilman Marcos Paulo Veríssimo agreed with Ruiz's conclusions. He expressed his concerns regarding Oi and Telefónica's partnership in online advertising, but, following Ruiz's statement, stressed "the scenario [in which antitrust concerns would emerge] is, today, merely speculative." Veríssimo agreed with Ruiz's position because he did not observe any of the necessary conditions that would require CADE's interference, namely (i) the presence of a new agent, empowered with substantial market share; (ii) the ability to exercise and abuse a dominant

[17] Massimo Motta says, about essential facilities, that authorities must verify (i) the substitutability degree of a given facility, in order to conclude if no other structure could be used in order to fill its gap; (ii) the economic agent's ability to reproduce the facility using its own resources; and (iii) the facility's joint use viability.

position; (iii) capacity to damage consumers, and/or (iv) the ability to foreclose the market to third parties.

Before CADE came to a final ruling, Commissioner Fernando de Magalhães Furlan made some relevant observations:

> The simplest answer is that information and presentation are the products being sold. One sells information about users' broadband navigation history in the form of profiles. And one sells selected advertising to users with profiles desired by the advertiser. It is not an isolated transaction. In Phorm's system, these two services are inextricably tied together: the advertiser buys advertisement's presentation to users who pertain to a determined profile. In that context, the broadband user is not the client, but the product. The providers sell users' data and advertisement's presentation to this user. The real client is the advertiser.[18]

What he does not do, despite this very clear description, is define the market as personal data retail. Rather, he reclaims the two-sided model. In my view, this interpretation could gain from going one step further and outlining the business as that of personal data retail.

If what is sold to advertisers is users' personal information, why describe this market as two-sided? For it to be two-sided, users would have to gain something from advertisers. The only product advertisers have to offer is advertising itself and it has already been established that advertisement is not a product users need. The result is a market that is not two-sided.

Furthermore, the two-sided categorization, in this case, has implications that go beyond mere formality. From the moment one perceives personal data retail as a separate market, the very frame of the operation changes. It no longer involves a multi-sided platform, in which advertisers and end-users interact by use of broadband providers' tools, but rather personal data retail, in which users' information is the product.

Another of Furlan's comments regards the leveraging of Oi and Telefónica's market power in broadband access into online advertising, and the creation of an essential facility in the form of users' histories. According to Furlan, Phorm would be able to monitor all of Oi's and Telefónica's users whenever they navigated, something no other company can duplicate—not Google, not Facebook, not both of them combined—and would as such seize control of an essential input.

In addressing this argument, Veríssimo goes in the opposite direction, claiming "the intervention would not even be in line with the traditional essential facility doctrine, for it would affect, apparently, the product sold in the online advertising market, instead of the input necessary to act in this market."[19] He said that there are other strategies companies could resort

[18] From the original in Portuguese: "A resposta mais simples é que estão sendo vendidos informação e apresentação. Vende-se a informação sobre o histórico de navegação na Internet dos usuários de banda larga na forma de perfis. E vende-se a apresentação de publicidade a usuários com perfis desejados pelo anunciante. Não se trata de uma venda isolada. No sistema da Phorm, esses dois serviços são vendidos de forma conjunta e inseparável: o anunciante compra a apresentação de publicidade aos usuários que pertençam a um determinado perfil. Nesse contexto, o usuário de banda larga não é o cliente, mas o produto. As provedoras vendem dados do usuário e vendem a apresentação de publicidade a este usuário. O real cliente é o anunciante."

[19] Translation from the original: "a intervenção sequer parecia coadunar-se com as versões tradicionais da

to in order to acquire users' information, and Phorm's approach would merely be a different method, not an essential facility. This argument would probably be differently put, however, if one analyzed personal data retail instead of broadband access or online advertising, and considered personal data to be the input.

Commissioner Furlan's arguments did not prevail and CADE's second ruling was the same as the previous one, but the cases are nonetheless meaningful as examples on how antitrust analysis could profit from different market models. In this article's view, the focal point in both instances is that Phorm could concentrate the market. CADE's observations are oriented toward online advertising and broadband access, but if one recognizes personal data retail as a separate market, it then becomes clear that Phorm would gain unprecedented access to users' information, and would be able to monetize such information into behaviorally targeted ads.

Furlan sees this as the creation of an essential facility within online advertising and the mitigation of competition in this industry, by means of a disguised partnership between Oi and Telefónica. This article argues it would also be the creation of a market player with a solid dominant position in the tracking industry, whose effects would impact online advertising.[20]

V. FINAL NOTES

The two-sided market model is increasingly useful and present in antitrust analysis. In current discussions involving the so-called sharing economy, its relevance is indisputable. However, some markets could profit from a different analytical framework, and that is the case for OAPs. I argue, as the Phorm cases hopefully demonstrate, that authorities would have something to gain from viewing such platforms as personal data retailers, namely undergoing changes in the way they describe the relevant market, as well as on how they apply barrier to entry, essential facility doctrine and vertical integration considerations.

doutrina das essential facilities, uma vez que atingiria, aparentemente, o próprio produto vendido no mercado de intermediação publicitária, ao invés de atingir o insumo necessário para atuação nesse mercado."

[20] Regarding the essential facility doctrine, Telefónica stated that any attempt to open access to the personal data database would configure a breach of intellectual property. Such a claim is entirely unsubstantiated, for if anyone's property was breached, it would be users'. There is no innovation added to this database that would render it protected under IP law.