Data Privacy, Palm Oil, and Petty Consumerism

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Anmol Kabra

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1 Introduction

Good evening everyone. I'm delighted to see you all come to my PubSpeak. I'll be talking about how consumerism bridges data privacy and palm oil production. I'll explain what I mean by each of the topics in some time. Since each of those topics are worthy of extensive research and talks themselves, my attempt will be to relate them together, not to go in a lot of depth. You might personally associate with some examples or arguments I make today, though I don't intend that. We are living with the topics I discuss today, and that's why they'll seem as an attack—they are not. But do take time to reflect on why they look like attacks to you.

Contrary to the order of issues in the topic "Data Privacy, Palm Oil, and Petty Consumerism", I'll start with consumerism, move to palm oil, and then finish with data privacy. I think this transition will work well as the issues in this talk will slowly seem more direct to our lives. You might also get increasingly cynical as we discuss topics—I do want this to happen.

So let's briefly touch on the focii of the talk. Consumerism is a concept or philosophy in economics that takes different shapes in any economy, capitalist, socialist, communist etc.—whatever you want to call it. Consumerism, in a broad sense, is a obsessive focus on consumers in an economy, those who consume products or services, either processed or raw.

A better-than-average citizen usually consumes products that contain Palm Oil, which is used to give that creamy and smooth texture to the product. Palm Oil production, like that of other vegetable oils, generally does not impact us in the short-term, and is way down the ladder on the supply chain of consumer products. We will see how rampant production impacts Climate Change.

Data Privacy, on the other hand, has been a sizzling concern in the past month with many scandals seeing the light of the day, and is something that is more conspicuously impacting us. I'll stick to data privacy issues in the context of advertising and user inference. We'll move up

this ladder of direct impact to consumers through the PubSpeak. Feel free to raise hands, ask questions, and comment.

I will also now confirm that we will have disconcerting videos in this talk that'll amaze you on the gravity of the situation. I'll pause after each video so that we can discuss a little.

On an aside, this image says "Buy More Shit" if you haven't noticed already. It is encoded as a QR code to signify how the modern technology influences consumers to buy more things than they need. I did not make this image, so I'm mostly interpreting of what this cartoon signifies. But I find this image suitable for today's talk. It has technology, consumerism, and shit in it.

2 Consumerism

Let's talk about consumers and producers in an economy. A growth in industrial output, especially manufacturing and services, is often an indicator of increased economic growth; think GDP, jobs and so on. The growing manufacturing output usually lands up in the shelves of a supermarket where the general public can purchase. Therefore, an increased industrial output directly translates into an increased supply of purchasable goods. Now a contently living individual has limited needs to sustain, and so the producers must compel the individual to buy more shit, even though the individual might not need. Companies will therefore use marketing and advertising to convince the individual that they need the new shit. New economic theories of consumer behavior argue that the consumer makes irrational choices affected immensely by external factors such as advertising, and are prone to being swayed easily. We have seen this influence in the form of 2016 US election interference by foreign entities.

Consequently, consumerism hits. In the derogatory meaning, Wikipedia describes consumerism as: "a social and economic order and ideology that encourages the acquisition of goods and services in ever-increasing amounts" ².

Take for example the newest iPad that Apple launched 2 weeks ago. The new 330-dollar iPad supports Apple Pencil on a 9.7-inch screen with the most recent iOS and processor³. Do I need it? No. But do I want it? Hell yeah. Apple has been so efficient in marketing the iPad that at one point in the last month, I justified buying the iPad to view PDFs of research papers on my bed. Of course I can just print them and study. But no, I wanted the new iPad. Thankfully, I have not yet given to wasting 330-dollars on the PDF reader. This is how consumerism impacts me, and possibly you all at the personal level.

¹Thompson, D. (Jan 2013). "The Irrational Consumer: Why Economics Is Dead Wrong About How We Make Choices". In *The Atlantic*. Available Online. Accessed April 7, 2018.

²Wikipedia. "Consumerism". Available Online. Accessed April 7, 2018.

³Apple. "iPad – Apple". Available Online. Accessed April 7, 2018.

Now you might consider that the corporations are solely to blame for coercing us to buy unnecessary products. Thorstein Veblen⁴, a 19th Century sociologist renowned for his book "The Theory of the Leisure Class", argues that the consumer is also to blame. In 1899, at a time when industrialization in the US was booming, Veblen wrote:

... property now becomes the most easily recognized evidence of a reputable degree of success as distinguished from heroic or signal achievement. It therefore becomes the conventional basis of esteem. Its possession in some amount becomes necessary in order to any reputable standing in the community. It becomes indispensable to accumulate, to acquire property, in order to retain one's good name.

To summarize, Veblen is arguing that the consumers perceive consumption and goods as a reputable emblem of social status, and that wealth in the form of consumable goods brings esteem. This entangles the over-supply theory I started with as Veblen argues that it is the consumers who increase demand of desirable goods, which may lead to increased production. However, I would like to challenge this idea of consumer-then-producer because the consumers might not associate with a product as an emblem of social status until it has been marketed as such. Think about the iPhone X here. You can buy a smartphone worth 200-dollars that'll function as you may desire. However, a well-marketed iPhone X advertised as a masterpiece—one that sets you apart from the rest of human species—will artificially increase demand. Surely, the iPhone X deserves praise, but when it is exalted as a symbol of wealth and prosperity, and often of social strength, the consumer is no longer motivated by its utility. Instead, the consumer creates demand for iPhone X based on their "want" to adapt to the modified social status. So the two theories exist together: marketing creating demand for products and pitching them as the new acceptable social markers, and consumers craving for this 'conventional basis of esteem'. So consumerism is not just a producer-induced philosophy, both the consumers and the producers help it take shape.

Most of us have had cravings for specific food items or electronic products, and advertisements have only exacerbated the sentiment. However, it is difficult to realize the impact of a purchase when the company does not empower consumers with information of the purchase's impact. We will see how this omission takes shape at the root of raw material procurement with Palm Oil as an example, and at the surface with data privacy. I will connect our purchases' impacts to consumerism. Before we proceed, any questions or comments?

⁴Veblen, T. (1899). *The Theory of the Leisure Class*. The Viking Press, New York.

3 Palm Oil

Here's a video by TakePart, a former digital magazine on lifestyle by Participant Media, which funded films like An Inconvenient Truth, Food Inc. etc.:

• https://youtu.be/LSumTLrJzdU (end at 1:29)

Palm Oil as a raw material for packaged food, or resource for cooking, is not necessarily the cause for a controversy. The Palm Oil cultivation has the highest per hectare yield among other vegetable oils like soybean and sunflower⁵ with more than 10 times higher yield than soybean. The cultivation is thickly concentrated in Indonesia with more than half of world Palm Oil coming from there, and Palm Oil farmers have better livelihoods in terms of stable employment and income than they had before they started cultivating Palm Oil. You might have noticed that I have been talking about Palm Oil production more than the oil itself. Arguably, it is one of the most efficient vegetable oil in the market, and finds use in most products in the average supermarket. However, the demand has only increased exponentially since the 1990s.

The negative impact of this increasing cultivation is daunting. United Nations estimated that there were around 3 billion people living below 2.5-dollars a day in 2005⁶. Additionally, the world population is expected to rise by 2.4 billion by 2050 from the current 7.3 billion. When you consider the increasing demands of the burgeoning population, Palm Oil cultivation starts to look unfeasible on that scale. Global Forest Watch, which is a forest cover monitoring organization using satellite imagery and local inquiries funded by US, EU, and Asian government programs, predicts that⁷:

Between 2001 and 2016, Indonesia lost 23.1Mha of tree cover. This loss is equal to 14.3% of the area's tree cover extent in 2000, and equivalent to 2.32Gt of CO_2 emissions.

How much is 23.1 million hectares of tree cover? About the size of Idaho. 2.32 Gigatons of CO_2 ? A report by the Netherlands Environmental Assessment Agency⁸ estimates India emitted that amount in 2014. All this happened with a 1.5 billion increase in world population between 2001 and 2016. Now project CO_2 emissions and tree cover loss over the next 30 years when

⁵Sheil, D. et al. (2009). "The impacts and opportunities of oil palm in Southeast Asia". Center for International Forestry Research, Indonesia. Available Online. Accessed April 7, 2018.

⁶United Nations (2005). "Ch 2: Poverty: the official numbers". In *Rethinking Poverty*. Available Online. Accessed April 7, 2018.

⁷Global Forest Watch. "Indonesia | Global Forest Watch". Available Online. Accessed April 7. 2018.

⁸Olivier, J et al. (2015). "Trends in Global CO2 emissions: 2015 report". PBL Netherlands Environmental Assessment Agency, The Hague, Netherlands. Available Online. Accessed April 12, 2018.

a 2.4 billion population increase is estimated. It is apparent that more humans will be buying ketchup, and applying shampoo. I doubt that the future will be good when the producers target the increasing consumer pool, and changes the new consumers' lifestyle as they rise from poverty to a life like us, the better-than-average citizen.

As expected, there have been efforts to monitor palm oil cultivation and make the practice sustainable. In 2004, manufacturers, governments, farmers, and NGOs came together to form the 'Roundtable on Sustainable Palm Oil' group⁹, that is seen as the biggest victory in this matter till date. Here's the World Wildlife Fund, a participant in RSPO explaining the idea:

• https://youtu.be/OLev1mnonUM?t=40s Comments?

Frankly, this is a great move to bring together corporations to procure sustainably, but has the roundtable been successful? Only around 20% of the total production is certified Palm Oil as of today¹⁰. A more important issue is illegal deforestation to make way for Palm Oil cultivation in Indonesia, only because the monitored legal output is not enough to meet the full demand of the consumers. It's like poaching. There's a reason why the hunting of elephants for tusks and of rhinoceres for horns hasn't stopped—while there is demand in the market, producers will try to meet it. The same idea with Palm Oil cultivation. Consumers' demand more products on the supermarket shelf, and as more people come out of poverty, there are more consumers. With increasing consumption, producers are compelled to sustain supply by illegal deforestation. To see the ineffectiveness of RSPO's certification mechanism, let's watch two clips from Years of Living Dangerously by National Geographic from 2014:

- https://youtu.be/brvhCnYvxQQ?t=21m50s (end at 22:47)
- https://youtu.be/brvhCnYvxQQ?t=46m52s (end at 48:10) (discusses a discrepancy between on-paper forest cover at 86,000 hectares and the actual 18,000 hectares left in just one park)

Going back to the RSPO video by WWF, there was a hint of consumer awareness in the end when WWF suggested that consumers must make informed choices about their purchases. However, the roundtable does not include the consumers' participation and it is solely mandated by the industry, NGOs, and farmers. Some may argue that they represent the interests of consumers, but I'm not going down that road in this talk. To my amusement, I found this page on WWF

⁹RSPO. "About Us | RSPO – Roundtable on Sustainable Palm Oil". Available Online. Accessed April 8, 2018. ¹⁰Carlson, K. et al. (2018). "Effect of oil palm sustainability certification on deforestation and fire in Indonesia". In *Proceedings of the National Academy of Sciences* Jan 2018. 115 (1) p. 121-126. doi: 10.1073/pnas.1704728114. Accessed April 12, 2018

International saying that the consumers don't need to worry about sustainability in consumption and can keep purchasing palm oil based products.

• https://www.worldwildlife.org/pages/which-everyday-products-contain-palm-oil

Clearly this strategy didn't work in the last decade. I wonder if keeping up our purchasing tendencies will aid sustainability when the world population increases by 2 billion in 30 years, and several more billion people come out of poverty. I'm not sure if products made of Palm Oil symbolize prosperity in the society, but they certainly symbolize living norms, as one can see the normalization of high-end cosmetic products, breakfast cereal etc. in the middle-class life. These products contain Palm Oil and their widespread normalization means persistently increasing demand. A middle-class family will see consumption of these products as a social marker of living, and will generate demand. This triggers producers to increase cultivation for meeting demand, leading to a supply market as horrific as the Indonesian one.

4 Data Privacy

Let's connect data privacy to consumerism now. The use of collected consumer data often takes the form of advertising, through which companies want to draw attention to their products and increase sales. Data collection is not a new feature of the internet economy, but the means and application of user data has become more subtle. We now have big data centers dedicated to infer correlations between user activity and purchasing attitude. The scale of data manipulation and collection is so large that it is referred to as 'Big Data', which a privacy advocacy group EPIC, Electronic Privacy Information Center, describes as¹¹:

... big data means that data is a resource that can be used and reused, often in ways that were inconceivable at the time the data was collected. Anonymity is also eroded in a big data paradigm. Even if every individual piece of information is stripped of personal information, the relationships between the individual pieces can reveal the individual's identity.

The ability to reveal identity from seemingly anonymous data is a little scary. But this property is inherent to the data, and the algorithms developed in Computer Science only provide a set of steps to extract correlations, which can be both good and bad depending on the use-case. Data manipulation can help decrease road accidents and improve medical care, but can also allow companies to target oblivious consumers, and negatively influence the ability to differentiate right

¹¹EPIC. "EPIC – Big Data and the Future of Privacy". Available Online. Accessed April 8, 2018.

and wrong. The latter has been efficiently exploited since the advent of online advertising and internet-based economies. To make this topic more concrete, let's discuss the recent Facebook scandal with respect to Cambridge Analytica.

Facebook has grown from 100 million in 2008 to 2.13 billion in 2017¹², and it is the most common platform of what we call online social media. Facebook's revenue mostly come from advertising on mobile and desktop platforms, generating more than 98% of its total revenue in 2017 totalling about 40 billion dollars¹³. It's the same with Google which generated 90% of its total approx. 100 billion revenue from advertising¹⁴. Both Facebook and Google have offered free messaging, social media, and mail services among others, and have generated revenue to sustain from advertising and marketing. When we talk about correlations in users' data, we mostly refer to how seemingly disconnected pieces of information can reveal trends in user behavior. In very large networks of users, it is possible to cluster users to target them. With targeted information comes social influence. Here's Chamath Palihapitiya. former Vice President of User Growth for Facebook, criticizing social media's influence in a Stanford Business School interview in Nov 2017:

• https://youtu.be/PMotykw0SIk?t=21m22s (end at 26:40) Comments?

I don't intend to criticize Facebook or any other company directly. Chamath has been trending on the internet since the interview as a voice straight from the horse's mouth. The Cambridge Analytica scandal showed up only last month—3-4 months after this interview went online.

What is the Cambridge Analytica issue? The issues dates back to 2-3 years ago when a personality quiz app on Facebook, not affiliated to the company, sold user activity about app users. Cambridge Analytica had been using that data to create voters' profiles, and swayed citizens through targeted advertisements. Only last month were we able to understand the effects of targeted advertising, estimated at 87 million targets around the world, most of them Americans during the 2016 presidential election.

What looms in the back of all these data privacy issues is consumerism, where internet businesses in the 21st Century profit off of advertising revenues, and thus are susceptible to crashes when a scandal hits. Facebook lost 50 billion dollars in market cap in 2 days after the

¹²Facebook. "Number of Monthly Active Facebook Users Worldwide as of 4th Quarter 2017 (in Millions)". In Statista – The Statistics Portal, Statista. Available Online. Accessed April 8, 2018.

¹³Facebook. "Facebook's Annual Revenue from 2009 to 2017, by Segment (in Million U.S. Dollars)". In Statista – The Statistics Portal, Statista. Available Online. Accessed April 8, 2018.

¹⁴Alphabet. "Google's Ad Revenue from 2001 to 2017 (in Billion U.S. Dollars)". In *Statista - The Statistics Portal*, Statista. Available Online. Accessed April 8, 2018.

scandal hit mainstream news last month¹⁵. New companies often base their business models on providing free services to users, and gain revenue from enterprise advertising in a growing network. A free product is a typical bait in a consumer-centric economy, similar to how Black Friday massive discounts motivate consumers to purchase. For companies like Facebook, your presence or usage of their product can yield high revenues as advertising affiliates can target marketing at you.

5 Conclusion

Advertising and marketing thus comprise a big chunk of the tech business in the 21st Century. Targeting users with visual aids is a neat technique to promote products. Exploiting this consumercentric economy has been an efficient way to generate revenue. Facebook is just an example, but the idea encompasses most social media platforms that provide free services for online presence—Snapchat, Twitter, Google, WhatsApp etc. The services are only free on the face value, but you risk giving up more than money—your identity. Consumerism plays a heavy hand in this privacy issue as your identity is traded for advertising to compel you to buy a product, often containing Palm Oil. Data privacy may seem to exist ephemerally until we have better cyber-security measures to avoid data breaches, but it's not your medical records or passwords that are being traded. Advertising merely requires information such as your browser activity, visited sites, watched videos etc. As long as economic structures focus on increasing sales by targeting consumers, consumerism will sustain along with data privacy. Purchases and online behavior are good ways to profile consumers, and when companies are determined to increase sales, learning user behavior can give them the higher hand.

- 1. A free-market economy often entails consumerism, i.e., a propensity to sell more products to make profit. When sales revenue is a benchmark for success among corporations, the industry will attempt to gain capital by creating demand through advertising.
- 2. The Palm Oil production and data privacy concerns, are, in part, manifestations of an industrial society that promotes consumerism. Our purchasing actions and online activity immensely affect producers actions. Deforestation to cultivate Palm Oil is just one of the many examples where the producers actions are detrimental to the Earth's health. Consumers like us are very well in the top 5% of the world's income bracket and we may never face the consequences of consumerism. But the underprivileged, doesn't matter if they consume, are seeing the impacts.

¹⁵Molla, R. (Mar 2018). "Facebook has lost nearly \$50 billion in market cap since the data scandal". In *Recode*. Available Online. Accessed April 8, 2018.