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TRANSPARENCY AND TARGETING OF POLITICAL ADVERTISING

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Thank you Chairwoman for the opportunity to appear before you today.

My name is Piotr Sapiezynski and I am an Associate Research Scientist at the Cybersecurity and Privacy Institute at Northeastern University in Boston. My research is on algorithm auditing: my collaborators and I study online platforms to better understand how they work and how they impact users and societies. Importantly, we do our work without cooperation of the companies that run these platforms and, often, despite their best efforts.

Over the last few years we have focused on Facebook's advertising platform. We documented Facebook's practices of collecting and using personal data without consent [1], and these findings were a part of a record 5 Billion dollar settlement with the US Federal Trade Commission [2]. We also identified Facebook's algorithms that led to gender and race discrimination in the delivery of ads for employment and housing [3, 4], for which Facebook was recently charged by the US Department of Justice [5].

Today I want to talk about Facebook's treatment of political advertising. Our research shows that Facebook's ad delivery algorithms shape which users see which ads in ways that may be harmful both to the political campaigns and to the society at large. In particular, we showed that Facebook's algorithms make it more difficult and more expensive for political parties to reach the potential voters who, according to Facebook, don't already agree with the advertised message [6]. These effects can not be observed in the limited data available through the Facebook Ad Library. Instead, we had to become political advertisers ourselves, and run our own ads on Facebook to investigate the algorithm that steers political messaging.

There is one aspect of online advertising that I want to draw your attention to because it's crucial for effectively regulating online platforms. The most important thing that I want to convey today is the distinction between two phases in online advertising: ad targeting and ad delivery.

Ad targeting is where the *advertiser* specifies their target audience, by demographics, location, or interests. Micro-targeting, or discriminatory targeting are mis-behaviors of the advertisers in this ad targeting phase. This is important, but it is not the focus of *our* work. Our work concerns the

harms that arise when Facebook makes certain algorithmic decisions in the second phase, the *ad delivery*, even when the advertiser is well-intentioned or uses broad targeting criteria.

Now, the budget that the advertiser sets for a particular ad is typically not sufficient to reach every single person in the targeted audience. This is especially the case in Europe where political ad budgets are much smaller than they are in the US. Therefore, the platform decides who among the targeted audience will actually see the ad. Crucially, this decision is not random. Instead, it is made by an algorithm optimized for profit, based on all of the user data that Facebook has. This process is called ad delivery and it is entirely under the control of the platform.

How does this optimization work? As you know, Facebook makes money by selling ads. The more time a user spends on Facebook, the more ads they view, and the more money Facebook makes. If a user finds an ad upsetting, or even uninteresting, they may stop browsing, and Facebook will lose the opportunity to show additional ads. So the ad delivery algorithms are designed to maximize the relevance of ads to users. They avoid showing uninteresting ads, or they charge more for showing them to cover the potentially lost income. Because of this optimization, the ad delivery algorithm affects who sees what messages just as much, if not more, as ad targeting choices made by the advertiser.

Imagine there are two political parties, A and B. A attracts mostly urban voters, B attracts mostly rural voters. Let's say they both run an ad at the same time, with the same budget and they both target the general population of their country. Despite that inclusive targeting, Facebook's algorithms will seek relevance, and likely deliver party A's ads mostly to urban voters and party B's ads mostly to rural voters. If, for example, Party B wants to overcome this effect and explicitly target the urban voters, they will be subject to price differentiation - Facebook will charge them more per impression than they would charge party A.

To be clear, this is not just a hypothetical. In our experiments in the US we ran ads for Bernie Sanders and Donald Trump targeting separately Democrat and Republican audiences. We found that it was up to four times more expensive to show ads for the candidate that the targeted audience did not support. This way Facebook limits political advertisers' ability to reach audiences that, in Facebook's estimation, do not share those advertisers' political views. This is in stark contrast with advertising in traditional media, where reaching a voter costs the same, regardless of the identity of the political advertiser.

Our results show that users are more likely to see ads that reinforce their world view, and they are less likely to be exposed to messages from other parties, even if those parties are actively trying to reach these users. People who are algorithmically prevented from seeing a different point of view will have a reduced pool of information when making their choices at the voting booth [7].

Unfortunately, neither price differentiation, nor these filter bubble effects can be tracked through Facebook's Ad Library. Facebook does publish political ads along with rough information about the audiences that saw them. However, they do not disclose how advertisers targeted the ads, nor how they were optimized in delivery. Because of these limitations it's impossible to use the

Ad Library data to disentangle the roles of targeting and delivery optimization in shaping the exposure of individuals to political messaging.

To reiterate, ad targeting is only the first step in online advertising. The second step, the ad delivery, is controlled by online platforms and it is optimized for profit. That optimization plays an important role in shaping which voters see which political messages, and it does not align with the goals of a well-informed, democratic society. If the legislation focuses only on limiting the ad targeting options, it will give advertising platforms even more power to make non-transparent delivery decisions, and it will not guarantee meaningful improvements in the experiences of actual users [8]. We call for legislation that explicitly recognizes the distinct roles that the advertisers and the platforms play in this process and that will force technology companies to give users, journalists, researchers, and regulators the access to information necessary to hold both the advertisers and the platforms accountable.

Thank you again, I look forward to your questions.

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