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Data & Democracy

Political microtargeting: A threat to electoral integrity?

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Appendices

SUMMARY

Political microtargeting (PMT) is a relatively new technique that can be used to influence the electorate by sending messages tailored to individual differences. While attempts to influence the electorate are not new, this technology-driven technique might be able to overcome the barriers political advertisers encounter with more traditional communication techniques. But at the start of this dissertation, nobody knew for sure if that was indeed true. That ambiguity did not stop popular media accounts in pointing to PMT as the culprit in the surprising electoral victories of the *Leave Campaign* in the United Kingdom, and the *Donald Trump Campaign* in the United States (Soares, 2016; Cadwalladr, 2017; Mahboob, 2019). The academic literature identified PMT as a potential threat to electoral integrity. PMT could manipulate citizens, infringe on their (intellectual) privacy, fragment the public agenda, and transform political power structures (Zuiderveen Borgesius et al., 2018, Gorton, 2016, Tufekci, 2014; Bennett, 2015; Barocas, 2012; Moore & Tambini, 2018). But these threats were never empirically tested. *If*, and the degree to which PMT is indeed a threat to electoral integrity is the open question that this dissertation aims to answer.

At the start of this dissertation, there was ample evidence that made it clear that PMT-techniques were commonly used in Anglo-Saxon countries (e.g. Kreiss, 2012; Issenberg, 2012; Hersh, 2015; Bennett, 2015; Anstead, 2017), but we knew very little of PMT's salience in European, multi-party contexts. Even though the studies about PMT in Anglo-Saxon countries are important, their findings cannot easily be generalized to European contexts because of the differences in electoral systems, privacy laws, and party financing. Therefore, the findings from these UK-, US-, and Canada-focused studies do not necessarily apply to other, contextually different, European countries such as the Netherlands. The purpose of the first empirical chapter of this dissertation is to understand to what extent and how campaigns in a multiparty democracy such as the Netherlands can campaign "as they do in North America?" (Bennett, 2016; p.261).

In the first empirical chapter, I propose and test a model that can be used to understand how contextual factors hinder or facilitate data-driven capabilities of political campaigns in different contexts. I find that Dutch parties can and do microtarget, but contextual factors mold PMT into a Dutch variant different from Anglo-Saxon variants.

The second empirical chapter focuses on a second understudied problem. Scholars made normative and theoretical claims about how large-scale data-collection and subsequent communicating of tailored messages could cause a perceived loss of intellectual privacy (Zuiderveen Borgesius et al, 2018, Gorton, 2016). People would experience the disappearance of a "room to think for oneself" and grow concerned about their privacy (Reiman, 1995; Dawes, 2014). But this was never empirically tested in a European setting.

Testing this relation over time, I found a downward spiral, where changes in privacy concerns lead to changes in attitudes toward PMT and vice versa, over time. This downward spiral is the first evidence for more normative and theoretical claims about a perceived loss of intellectual privacy in relation to PMT. This spiral is important because it shows how citizens could be starting to behave in an undesirable way from a democratic perspective. This downward spiral could, for instance, result in chilling effects or hinder people in thinking independently and deviate from the popular opinion.

The third empirical chapter focuses on the effectiveness of PMT-techniques, that were assumed in the media (Cadwalladr, 2017) and the literature (Gorton, 2016), but were never measured. While, in 2019, US-based research found evidence for effectiveness of PMT-techniques (Haenschen & Jennings, 2019; Endres, 2019), there still was no empirical knowledge about PMT's effectiveness in a non-US, multiparty context.

In the third empirical chapter, I find that PMT is reasonably effective in increasing the likelihood to vote for the political party sending the microtargeted message. Recipients of the PMT message on average increased ten percent in likelihood to vote for the microtargeting party, in comparison with the likelihood to vote of the control group. As such, this chapter offers a first glimpse into PMT's effects in a natural multi-party electoral context.

In the fourth empirical chapter, I focus on a new disinformation mode that rises through the ranks as a potentially very manipulative force: deepfakes. When combined with microtargeting techniques, deepfakes are potentially even more manipulative. The idea is that political actors could use microtargeted deepfakes to effectively and efficiently damage politicians. As such, microtargeting techniques could amplify deepfakes' damage by allowing malicious actors to send different, tailored deepfakes to only those people who are likely susceptible to the specific deepfake.

I find that microtargeting techniques can indeed further amplify the negative effects of a deepfake. For now it seems that microtargeted political deepfakes can become a problem in future elections. But the complexity of an election makes it challenging to use microtargeting deepfakes to achieve specific goals in a controlled way. Getting accurate perceptions of who is susceptible to what information is vital, but not easy to do.

A threat to electoral integrity?

Whether PMT should be considered a threat to electoral integrity depends for a great deal on the actor using the technique. Is this a political actor operating in bad faith, e.g. a foreign actor? Then, PMT can be a threat to the integrity of elections.

Primarily because PMT has been shown effective in influencing citizens' likelihood to vote for the political party sending the message (chapter 4). Moreover, PMT has been shown to be an amplifier of deepfake disinformation's effects on political attitudes (chapter 5). I have my doubts about PMT's potential for manipulation on a grand scale, but I am worried about small-scale manipulation that occurs under the radar.

By contrast, when PMT techniques are employed by a political actor operating in good faith, I am not too concerned about electoral integrity. In this scenario, it is unlikely that PMT is used to manipulate citizens, for example. But the negative perceptions of PMT and the negative reciprocal relation with privacy concerns exist regardless of whether a good or a bad faith political actor uses PMT. The (intellectual) privacy infringing nature of microtargeting may potentially lead to behavior that is undesirable from a democratic point of view, but these behavioral consequences fall beyond the scope of this dissertation. Potentially, future research gives us more capacity to mitigate threatening applications of PMT, while utilizing PMT's positive potential.

It is discomfoting to know that new challenges will keep on arising alongside new technologies. It is also discomfoting to know that the ever-increasing connectivity enables bad faith actors to try to influence elections from distant locations. To end on a positive note: influencing something as complex as an election may be possible, but influencing an election in a desired direction and in a controlled way is extremely difficult.

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Appendices

SAMENVATTING

Politieke microtargeting (PMT) is een relatief nieuwe techniek waarmee politieke actoren op maat gemaakte boodschappen sturen naar burgers, met de hoop die burgers te beïnvloeden. Pogingen het electoraat te beïnvloeden zijn niet nieuw, maar deze nieuwe technologiegedreven techniek zou weleens effectiever en efficiënter kunnen zijn dan communicatie via de traditionele massamedia. Maar óf PMT inderdaad effectief en efficiënt is, was lang onduidelijk. Die onduidelijkheid weerhield media er niet van om PMT aan te wijzen als de oorzaak van de verrassende verkiezingsoverwinningen van de *Leave*-campagne in het Verenigd Koninkrijk, en de Donald Trump-campagne in de Verenigde Staten (Soares, 2016; Cadwalladr, 2017; Mahboob, 2019). Ook de academische literatuur wees PMT aan als een mogelijke bedreiging voor de integriteit van verkiezingen. PMT zou burgers kunnen manipuleren, inbreuk kunnen maken op hun (intellectuele) privacy, de publieke agenda kunnen versnipperen en politieke machtsstructuren kunnen transformeren (Zuiderveen Borgesius et al., 2018, Gorton, 2016, Tufekci, 2014; Bennett, 2015; Barocas, 2012; Moore & Tambini, 2018.). Of, en in welke mate, PMT inderdaad een bedreiging vormt voor de electorale integriteit is de open vraag die ik in proefschrift beantwoord.

Het was al snel duidelijk dat PMT-technieken welig tierden in politieke campagnes in Angelsaksische landen (Kreiss, 2012; Issenberg, 2012; Hersh, 2015; Bennett, 2015; Anstead, 2017). Maar hoewel studies over PMT in Angelsaksische landen belangrijk zijn, is het lastig de bevindingen te generaliseren naar Europese meerpartijencontexten. Daar worden andere kiesstelsels en privacywetgeving gehanteerd, om nog maar te zwijgen over verschillen in partijfinanciering tussen Angelsaksische landen en Europese landen zoals Nederland. Het doel van het eerste empirische hoofdstuk van dit proefschrift is dan ook om eerst te begrijpen in hoeverre en hoe politieke partijen in een meerpartijdemocratie als Nederland campagne kunnen voeren zoals in Noord-Amerika en het Verenigd Koninkrijk? (zie Bennett, 2016).

In het eerste empirische hoofdstuk ontwikkel en test ik een model dat helpt te begrijpen hoe contextuele factoren bepalen in welke mate politieke partijen datagedreven campagnetechnieken ontwikkelen en gebruiken. Nederlandse partijen doen aan microtargeting, maar onder druk van contextuele factoren neemt microtargeting een hybride, Nederlandse vorm aan die verschilt van de Angelsaksische vorm van microtargeting.

Het tweede empirische hoofdstuk van dit proefschrift richt zich op een ander onderbelicht probleem. Wetenschappers deden normatieve en theoretische beweringen over hoe grootschalige dataverzameling en daaropvolgende microtargeting kan leiden tot het ervaren van een verlies van intellectuele privacy. Mensen zouden merken dat hun 'ruimte om voor zichzelf te denken' verdwijnt en ze zouden zich zorgen maken over

hun privacy (Reiman, 1995; Dawes, 2014). Maar dit is nooit empirisch getest in een Europese setting.

Ik testte de wederkerige relatie tussen privacyzorgen en attitude jegens PMT, gedurende negen maanden. Ik ontdekte een neerwaartse spiraal, waarbij veranderingen in de bezorgdheid over privacy leiden tot veranderingen in de attitude jegens PMT en andersom, gedurende die negen maanden. Deze neerwaartse spiraal is het eerste bewijs voor de meer normatieve en theoretische beweringen over een vermeend verlies van intellectuele privacy met betrekking tot PMT. De neerwaartse spiraal is belangrijk omdat het toont hoe burgers, vanuit een democratisch perspectief, ongewenst gedrag kunnen gaan vertonen. Deze neerwaartse spiraal zou bijvoorbeeld kunnen leiden tot *chilling effects*, maar zou ook mensen kunnen bemoeilijken om zelfstandig te denken en af te wijken van de dominante opinie.

Het derde empirische hoofdstuk richt zich middels een veldexperiment op de effectiviteit van PMT-technieken, die de media (Cadwalladr, 2017) en de literatuur (Gorton, 2016) wel veronderstellen, maar die nooit werd gemeten. Hoewel Amerikaans onderzoek in 2019 bewijs vond voor de effectiviteit van PMT-technieken (Haenschen & Jennings, 2019; Endres, 2019), was er nog steeds geen empirische kennis over de effectiviteit van PMT in een niet-Amerikaanse, meerpartijencontext.

In het derde empirische hoofdstuk vind ik dat PMT redelijk effectief is in het vergroten van de kans om te stemmen op de politieke partij die microtargetet. Dit hoofdstuk biedt daarmee een eerste blik op de effecten van PMT in een natuurlijke meerpartijenverkiezingscontext.

In het vierde empirische hoofdstuk richt ik mij aan de hand van een online experiment op een nieuwe, potentieel zeer manipulatieve vorm van desinformatie: deepfakes. Microtargeting zou de manipulatieve kracht van deepfakes verder kunnen versterken door kwaadwillende actoren toe te staan verschillende, op maat gemaakte deepfakes te sturen naar alleen die mensen die waarschijnlijk gevoelig zijn voor de specifieke deepfake.

Het online experiment laat zien dat microtargetingtechnieken de negatieve effecten van een deepfake inderdaad verder kunnen versterken. Voorlopig lijkt het erop dat politieke deepfakes die zijn gemicrotargetet in de nabije toekomst een probleem kunnen vormen in verkiezingstijd. Maar de complexiteit van een verkiezing maakt het lastig om dit soort gerichte deepfakes in te zetten om op een gecontroleerde manier specifieke politieke doelen te behalen.

Een bedreiging voor de electorale integriteit?

Of PMT als een bedreiging voor de electorale integriteit moet worden beschouwd, hangt voor een groot deel af van de actor die de techniek gebruikt. Is dit een politieke actor die te kwader trouw opereert, zoals een buitenlandse mogendheid? In zulke gevallen kan PMT een bedreiging vormen voor de integriteit van verkiezingen. Vooral omdat PMT redelijk effectief is gebleken in het beïnvloeden van burgers (hoofdstuk 4) en omdat PMT effecten van desinformatie kan versterken (hoofdstuk 5). Ik heb mijn twijfels over de mogelijkheden van PMT om het electoraat op grote schaal te manipuleren, maar ik maak mij wel zorgen over kleinschalige manipulatie die onder de radar plaatsvindt.

Wanneer PMT-technieken daarentegen worden toegepast door een politieke actor die te goeder trouw opereert, maak ik mij niet al te veel zorgen over de integriteit van verkiezingen. In dit scenario is het onwaarschijnlijk dat PMT bijvoorbeeld wordt gebruikt om burgers te manipuleren. De negatieve perceptie van PMT en de negatieve wederkerige relatie met privacyzorgen bestaat wel nog steeds, ongeacht of een politieke actor te goeder of te kwader trouw PMT gebruikt. Het (intellectuele) privacy-schendende karakter van microtargeting kan mogelijk leiden tot gedrag van burgers dat vanuit democratisch oogpunt ongewenst is, maar of dat daadwerkelijk het geval is wordt niet in dit proefschrift onderzocht. Mogelijk geeft toekomstig onderzoek ons meer handvatten om de bedreigende toepassingen van PMT in te perken en het positieve potentieel van PMT te benutten.

Het is ongemakkelijk om te weten dat naast nieuwe technologieën steeds weer nieuwe democratische uitdagingen ontstaan. Het is ook ongemakkelijk om te weten dat de steeds toenemende connectiviteit kwaadwillenden in staat stelt vanuit elke willekeurige locatie te pogen verkiezingen te beïnvloeden. Maar, ter geruststelling: een verkiezing is een complexe gebeurtenis en een dergelijke complexe gebeurtenis beïnvloeden is mogelijk, m  r een verkiezing in de gewenste richting en op een gecontroleerde manier beïnvloeden is gelukkig lastiger.

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AUTHOR CONTRIBUTION

Chapter 2

Title: Two crates of beer and 40 pizzas: the adoption of innovative political behavioral targeting techniques.

Researchers involved: Tom Dobber (TD), Damian Trilling (DT), Natali Helberger (NH), Claes de Vreese (CdV)

	Limited contribution	Substantial contribution
Conceptualization	DT, NH, CdV	TD
Methodology	DT	TD
Data collection	CdV	TD
Analysis		TD
Writing (original draft)	DT, NH, CdV	TD
Writing (review and editing)		TD, DT, NH, CdV
Visualization		TD, DT

Chapter 3

Title: Spiraling downward: The reciprocal relation between attitude toward political behavioral targeting and privacy concerns.

Researchers involved: Tom Dobber (TD), Damian Trilling (DT), Natali Helberger (NH), Claes de Vreese (CdV)

	Limited contribution	Substantial contribution
Conceptualization	DT, NH, CdV	TD
Methodology		TD, DT, NH, CdV
Data collection		TD, DT, NH, CdV
Analysis	DT	TD
Writing (original draft)	DT, NH, CdV	TD
Writing (review and editing)	DT, NH, CdV	TD
Visualization		TD, DT

Chapter 4

Title: Measuring effects of issue-based microtargeted messages on vote likelihood: reporting a field experiment in a multi-party setting

Researchers involved: Tom Dobber (TD), Damian Trilling (DT), Natali Helberger (NH), Claes de Vreese (CdV)

	Limited contribution	Substantial contribution
Conceptualization	DT, NH, CdV	TD
Methodology		TD
Data collection		TD
Analysis	DT	TD
Writing (original draft)	DT, NH, CdV	TD
Writing (review and editing)	DT, NH, CdV	TD
Visualization		TD

Chapter 5

Title: Do (microtargeted) deepfakes have real effects on political attitudes?

Researchers involved: Tom Dobber (TD), Nadia Metoui (NM), Damian Trilling (DT), Natali Helberger (NH), Claes de Vreese (CdV)

	Limited contribution	Substantial contribution
Conceptualization	DT, NH, CdV	TD
Methodology		TD, NM
Data collection		TD
Analysis	DT	TD
Writing (original draft)	NM, DT, NH, CdV	TD
Writing (review and editing)	DT, NH, CdV	TD
Visualization		TD, NM

Appendices

DANKWOORD

“Dat is zeker heel eenzaam werk, zo’n proefschrift schrijven” vroeg een journalist mij laatst. Eigenlijk niet. Eigenlijk kijk ik terug op een geweldige tijd, waarin zoveel mensen mij hebben geholpen. Heel veel dank!

Damian, ik ben de eerste promovendus die je begeleidde maar het leek of je het al jaren deed. Hoewel jij overliep van werk stond je altijd klaar en was je razendsnel in je altijd constructieve commentaar. Hoe vaak heb je het veldexperimentartikel gelezen denk je? En kun je het woord *deepfake* nog lezen? Jij stuurde mij altijd bij waar nodig en zorgde, zeker in het begin, dat mijn blik niet afdwaalde naar minder relevante onderzoeksrichtingen.

Natali, jij hebt een uniek perspectief. Deels omdat je jurist bent, maar deels omdat je ontzettend goed het overzicht kunt houden in een warrig interdisciplinair onderzoeksveld. Als ik een conceptpaper rondstuurde wist ik dat ik in de kantlijn epistels zou vinden waarin jij betoogde waarom een idee een betere uitwerking verdiende (of juist niet). Ik genoot altijd van onze tête-à-têtes waarbij je uitgebreid de tijd nam om mijn perspectief te begrijpen en ik waardeer dat je nooit aarzde een compliment te maken wanneer dat in jouw ogen terecht was. Ik zal bovendien nooit vergeten dat je cadeautjes stuurde uit Schotland, waar je toen op vakantie was, toen je hoorde dat Olivia was geboren.

Claes, behalve van jouw extreem slimme, snelle en onvermoeibare geest heb ik erg genoten van je o-zo-leuke-flauwe-grappen en mooie verhalen. Je stond open voor onverwachte ideeën, mits ik ze kon beargumenteren. Nadat ik mijn idee voor *microtargeted deepfakes* had gepitcht zei je: “Tom kijkt een avond De Wereld Draait Door en hij heeft meteen een nieuw experiment bedacht. Ga het maar doen.” Je liet mij vrij om problemen aan te pakken op mijn manier en drong jouw zienswijze nooit op.

Dank aan commissieleden Peter Neijens, Guda van Noort, Frederik Zuiderveen Borgesius, Sanne Kruikemeier en Kristof Jacobs voor de tijd en moeite die jullie hebben genomen om mijn proefschrift te beoordelen.

Joost (van Spanje), bij jou klopte ik aan voor een aanbevelingsbrief toen ik wilde solliciteren naar deze promotiepositie. Ik had geen onderzoeksmaster gedaan en ik werkte al enige tijd in het ‘bedrijfsleven’, dus jouw aanbeveling was erg belangrijk voor mij.

Dank ook aan Rens en Judith voor jullie behulpzaamheid en voor *dynamic data analysis*.

Anna, Lianne, Dina, Linda, Michael, Susan, Alyt, Nadia, Robin, Jakob, Franzi, Sijfra: dank voor de gezelligheid. Dank ook voor het tolereren, zij het met horten en stoten, van mijn bulderende stem. Anna heeft hier het meest onder te lijden gehad (zelfs haar *noise cancelling headphone* hield het geluid van mijn stem niet tegen, betekent dat dat mijn stem geen *noise* is?): wij begonnen tegelijk aan onze promotie en vonden elkaar in een voorkeur voor vastigheid binnen een kantoor vol flexplekken.

Brahim, dank voor de honderden potjes. En dank dat je mij altijd laat winnen. Dank ook voor de ochtendoraties. Als je het kantoor binnenloopt moet je altijd eerst minstens een kwartier je ei kwijt: ‘de ochtendoratie’.

Marijn, in het begin deelden wij wekelijks het kantoor in het oude IVIR-gebouw. Je kon je zo heerlijk verontwaardigen over van alles: Ajax, Frans de Waal (moraliteit), Palantir, maar vooral: studenten die de panopticummetafoor gebruiken.

Jef, Paddy, Sarah, Ronan en Max, van jullie heb ik erg veel geleerd over informatierecht. Nog lang niet genoeg, overigens, dus er ligt nog een herculestaak voor jullie in het verschiet.

Daan en Franka, jullie hebben altijd meegeleefd met mijn promotie. Jullie waren altijd razendgeïnteresseerd en inspirerend qua ambitie, organisatie en skills. Zo heeft Louis van Gaal de dansvaardigheden van Daan eens gecompimenteerd, ik bedoel maar.

Kees, dank voor je creativiteit. Wat ben jij goed met dingen. Jouw creativiteit liep als een rode draad door mijn promotie: van de schitterende poster voor het symposium Data & Democracy, via de stimuli voor het veldexperiment, tot de omslag van dit proefschrift.

Leroy, Carmen, Daan (DL), Lotte, Ro, Floor, Jorrit, Eefje, Sam, Mariëlle, Maarten, Alex, Liselotte, Dennis, Vincent, Fleur, Bernard, Martijn bedankt voor de honderden drinkgelagen: ze worden wat minder in getal maar hopelijk stoppen ze nooit.

Joost, Jouke, Joeri, Yoch, Michael, Robert, Robin: Gall & Galliërs, Schwalbekoningen: dank voor de belangrijkste bijzaak.

Jasper en Marieke, jullie waren altijd supergeïnteresseerd en kwamen geregeld met leuke suggesties voor onderzoek (Jasper had vooral een leuk idee voor een enquête).

Lia, Henk, Marlien, Rob, Joost (van Eeden), het is altijd heerlijk ontspannend om jullie te zien en met jullie te kletsen over van alles en Olivia (Lia), Max en Ajax (Henk), Haarlem 40 jaar geleden (Rob), het betere vermaak (koekeroend, Joost) en om een spervuur aan geintjes te maken (Marlien).

Henk en Ariëne, jullie leefden altijd mee met mijn promotie en waren erg geïnteresseerd. Ik genoot van de uren die we aan tafel in Wassenaar doorbrachten. Dat er nog vele mogen volgen!

Joost, Grace, Sophie en Tjalling bedankt, en dan met name Sophie die een barre Utrechtse winter heeft getrotseerd om enquêtes af te nemen en die zich de blaren op de vingers heeft getypt om bij te dragen aan de deepfake.

Pap en mam, bedankt dat jullie mij altijd steunden: van het vmbo naar het mbo, via het hbo naar de universiteit en nu sta ik hier.

Charlotte je extreem goede grappen, je vrolijkheid en je aanwezigheid maken elke dag licht. En je aandacht trouwens. Je hebt mij zo vaak over microtargeting horen praten dat jij mijn proefschrift bijna kan verdedigen.

Olivia, lieve blije beer. Je bent net je moeder, kleine lachebek.

Appendices

APPENDIX CHAPTER TWO

Appendix 2A - Translated interview guide (was originally in Dutch) [potential follow-up questions are in italic]

General introduction

1. Thank you for cooperating with this study. I am quite curious about your daily professional activities. Can you tell me what your function entails?

Organization

I would like to talk a bit about the way the campaign is organized.

2. Is there a dedicated tech, data (or something similar) department in the campaign? (*How autonomous does the department operate? How many people are part of that department? What kind of backgrounds do they have?*)

Data use and targeting

Now, I would like to talk about the use of personal data in political campaigns. I am curious about the types of data the campaign uses to send political messages.

3. What kind of data does the campaign use? (*How large is the database?*)
4. How does the campaign collect personal data? (*Does the campaign use consumer data from commercial databases?*)
5. *How does the campaign use its data in practice? (Does the campaign construct voter profiles based on personal data? How do those profiles come about? Does the campaign construct profiles on an individual level or on a group level? What kinds of techniques does the campaign use to analyse the data?)*
6. How do you decide who to target in the campaign? (*and how do you try to reach them?*)
7. Does the campaign send tailored messages to specific voter groups? (*How does this work in practice? What role do data play herein? How do you decide which message you send to whom? Does the campaign target its data-driven messages to individuals, household, or larger subgroups?*)
8. What kind of role does Facebook play in the campaign? (*How do you use Facebook to reach specific voters? Do you use lookalike audiences? Dark posts? Other techniques? Other social media?*)

9. A campaign can use several campaigning instruments: from tv-advertisements, to newspaper ads or posters. In relation to other campaigning instruments: how important are data for the campaign? *(And how will this be in four years, do you think?)*
10. How big is the budget for data-driven campaigning?
11. What is needed for a good data-driven campaign?
12. What kind of circumstances obstruct data use?
13. What kind of circumstances enable data use?
14. What kind of role do commercial consulting organizations such as Politieke Academie or Blue State Digital play in the campaign?
15. To what extent do you find the present campaign advanced?
16. What are the differences concerning data use between the present campaign and the previous national campaign?
17. To what extent does the party exchange data-driven campaigning techniques with foreign political parties?
18. What kind of measures does the campaign have in place to safeguard its data? *(Are there guidelines for the fair use of data? What do those guidelines look like? Does the campaign train people to handle personal voter information? Are campaign staffers obliged to sign non-disclosure forms? Does the campaign share data with third parties [commercial or political]? Does the campaign inform voters about the fact that they receive personalized messages?)*
19. To what extent do the current data protection regulations influence the use of data in the campaign? *(How does this work? Do laws and regulations make it more difficult for a campaign to carry out a data-driven campaign? How? To what extent are the current regulations up to date?)*

Democratic implications

20. In how far can the use of data improve the election results?
21. How do you feel about a possible increase in the use of data by political campaigns in general? (*And when do campaigns cross the red line to unacceptable practices?*)
22. Thank you very much for this interview. I have one last, practical, question: with whom can I seek contact when I have additional questions?

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APPENDICES CHAPTER THREE

Appendix 3A - sample descriptives

Table 3.A1 shows that the mean age of the sample is higher than the population mean (Statistics Netherlands, 2017). This is because our sample consists of people aged 18 years or older. The men/women distribution in our sample is comparable with the population mean.

Table 3.A1 - descriptive statistics sample

	T1	μ
Age	56.4	41.5
Gender (men)	51.8%	49.57%

Appendix 3B - education level

Table 3.B1 - The distribution on education levels is similar to the population mean.

Education levels	T1	T2	μ
Elementary school	7%	7%	10%
High school/community college	58%	58%	60%
Bachelor's degree	24%	24%	19%
Master's degree or higher	12%	12%	11%

Numbers may not add up to 100 due to rounding.

APPENDICES CHAPTER FOUR

Appendix 4A - Stimuli and their translations



Crime: Be certain - of a safe neighborhood - Vote March 21



Integration: Be certain - of good shelter for refugees - vote March 21



Job market: Be certain - of good work for everybody - vote March 21



Health care - Be certain - of good health care in your neighborhood - vote March 21



Education - Be certain - of fair chances for every child - vote March 21



Housing market - Be certain - of affordable houses in all neighborhoods - vote March 21

Appendix 4B – Questionnaire T1

Original survey was in Dutch.

1.1 Do you have a newspaper subscription?

- a. Yes
- b. No (Continue to 1.3)

1.2 To what newspaper are you subscribed?

1.3 Did you read a paper newspaper in the past month?

1.4 Did you read an online newspaper article in the past month?

Name of newspaper: _____

1.5 Do you use Facebook?

- a. Yes
- b. No

2.1 Could you indicate for the following issues, which are part of the tasks of the municipality, how important those issues are for you personally? The score of 1 stands for not at all important, and the score of 10 stands for very important. You can also answer 'I don't know'.

a. Tourism in our city

1 2 3 4 5 6 7 8 9 10 99

b. Crime in our city

1 2 3 4 5 6 7 8 9 10 99

c. Integration in our city

1 2 3 4 5 6 7 8 9 10 99

e. Job market in our city

1 2 3 4 5 6 7 8 9 10 99

f. Quality of health care in our city

1 2 3 4 5 6 7 8 9 10 99

g. Quality of education in our city

1 2 3 4 5 6 7 8 9 10 99

h. Housing market in our city

1 2 3 4 5 6 7 8 9 10 99

i. Availability of stores in our city

1 2 3 4 5 6 7 8 9 10 99

3.1 We are now curious about your political orientation. Could you indicate the likelihood that you will cast your vote for the following parties for the coming municipality elections? (*1 = most unlikely, 10 = most likely*)

a. PvdA

1 2 3 4 5 6 7 8 9 10

b. CDA

1 2 3 4 5 6 7 8 9 10

c. VVD

1 2 3 4 5 6 7 8 9 10

May I, finally, ask you a few short, general questions?

4.1 What is your year of birth?

4.2 What is your education level?

- 1 elementary school
- 2 High school 1
- 3 High school 2
- 4 community college
- 5 university of applied science
- 6 university or higher
- 99 other

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4.3 What is your gender? (was not actually asked, but only reported)

0 male 1 female

4.4 May we have your email address? This way we can keep you updated on the process, contact you for our second survey, and contact you when you've won a bol.com voucher.

Appendix 4C - Questionnaire T2

Original survey was in Dutch.

1.1 Could you indicate for the following issues, which are part of the tasks of the municipality, how important those issues are for you personally? The score of 1 stands for not at all important, and the score of 10 stands for very important. You can also answer 'I don't know'.

a. Tourism in our city

1 2 3 4 5 6 7 8 9 10 99

b. Crime in our city

1 2 3 4 5 6 7 8 9 10 99

c. Integration in our city

1 2 3 4 5 6 7 8 9 10 99

e. Job market in our city

1 2 3 4 5 6 7 8 9 10 99

f. Quality of health care in our city

1 2 3 4 5 6 7 8 9 10 99

g. Quality of education in our city

1 2 3 4 5 6 7 8 9 10 99

h. Housing market in our city

1 2 3 4 5 6 7 8 9 10 99

i. Availability of stores in our city

1 2 3 4 5 6 7 8 9 10 99

2.1 When we talk to people about the municipality elections, we often notice that people were not able to vote because they had no time, were sick, or because of other reasons. What statement best describes your situation?

- 1) I did not vote for the municipality elections. [continue to 2.2]
- 2) I thought about voting, but did not do so this time. [continue to 2.2]
- 3) I usually vote, but, this time, I did not. [continue to 2.2]
- 4) I voted for the municipality elections

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2.2 Could you indicate the likelihood that you would have cast your vote for the following parties for the recent municipality elections? (1 = most unlikely, 10 = most likely)

a. PvdA

1 2 3 4 5 6 7 8 9 10

b. CDA

1 2 3 4 5 6 7 8 9 10

c. VVD

1 2 3 4 5 6 7 8 9 10

3.1 To what extent did the campaigns of the following political parties align with the topics that you yourself find important? (1 = not at all, 10 = to a very large extent, 99 = I don't know)

a. CDA

1 2 3 4 5 6 7 8 9 10 99

b. D66

1 2 3 4 5 6 7 8 9 10 99

c. GroenLinks

1 2 3 4 5 6 7 8 9 10 99

d. Partij van de Arbeid (PvdA)

1 2 3 4 5 6 7 8 9 10 99

e. Socialistische Partij (SP)

1 2 3 4 5 6 7 8 9 10 99

f. VVD

1 2 3 4 5 6 7 8 9 10 99

4.1 Have you seen this message in the run up to the municipality elections?

a. Yes

b. No [ga door naar vraag 4.3]

c. Don't know [ga door naar vraag 4.3]

**Zeker
zijn**

—

**van goede opvang
voor vluchtelingen.**



5.2 How did you receive this message?

- a. via postal mail
- b. via Facebook
- c. via postal mail as well as via Facebook
- d. don't know

5.3 Could you, apart from your opinion about the party behind the message, indicate to what extent this message appeals to you personally (1 = 'not at all', 7 = 'to a very large extent')

1 2 3 4 5 6 7

Appendix 4D – Likelihood to vote for CDA and VVD

Table 4.D1 - OLS regression detailing effect PvdA stimulus on likelihood to vote for CDA

Vote likelihood CDA (T2)	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Vote likelihood CDA T1	.47	.12	4.03	<.001	.24 – .71
Condition*	-.44	.40	-1.09	.28	-1.23 – .36
Constant	1.70	.37	4.54	<.001	.96 – 2.44

N = 84. *Control = 0, experimental = 1; $R^2 = .17$

Table 4.D2- OLS regression detailing effect PvdA stimulus on likelihood to vote for VVD

Vote likelihood VVD (T2)	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Vote likelihood VVD T1	.56	.14	4.10	<.001	.29 – .84
Condition*	-.50	.42	-1.20	.23	-1.33 – .33
Constant	1.82	.40	4.60	<.001	1.03 – 2.61

N = 84. *Control = 0, experimental = 1; $R^2 = .18$

Appendix 4E - Results pre-test

Crime:

‘Zeker zijn van een veilige buurt’

(Be certain - of a safe neighborhood)

Can you indicate the extent to which you think the message refers to the following themes?

Table 4.E1 - Results pre-test crime stimulus (1-7 scale)

	M	SD
Integration (1)	3.96	1.88
Crime (2)	6.52	.87
Tourism (3)	2.92	1.78

Integration

‘Zeker zijn van goede opvang voor vluchtelingen’

(Be certain - of good shelter for refugees)

Can you indicate the extent to which you think the message refers to the following themes?

Table 4.E2 - Results pre-test crime stimulus (1-7 scale)

	M	SD
Integration (1)	6.20	.71
Crime (2)	3.48	1.85
Housing market (3)	4.32	1.75

Job market

‘Zeker zijn van goed werk voor iedereen’

(Be certain - of good work for everybody)

Can you indicate the extent to which you think the message refers to the following themes?

Table 4.E3 - Results pre-test job market stimulus (1-7 scale)

	M	SD
Integration (1)	4.68	1.78
Job market (2)	6.68	.63
Education (3)	4.76	1.99

Health care

‘Zeker zijn van goede zorg in de buurt’

(Be certain - of good health care in your neighborhood)

Can you indicate the extent to which you think the message refers to the following themes?

Table 4.E4 - Results pre-test health care stimulus (1-7 scale)

	M	SD
Crime (1)	2.04	1.21
Health care (2)	6.88	2.44
Integration (3)	2.44	1.78

Education

‘Zeker zijn van eerlijke kansen voor ieder kind’

(Be certain - of fair chances for every child)

Can you indicate the extent to which you think the message refers to the following themes?

Table 4.E5 - Results pre-test education stimulus (1-7 scale)

	M	SD
Education (1)	6.68	.56
Health care (2)	4.44	2.12
Integration (3)	5.28	1.67

Housing market

‘Zeker zijn van betaalbare huizen in alle wijken’
(Be certain - of affordable houses in all neighborhoods)

Can you indicate the extent to which you think the message refers to the following themes?

Table 4.E6 - Results pre-test housing market stimulus (1-7 scale)

	M	SD
Fiscal policy (1)	4.64	1.50
Housing market (2)	6.64	.57
Job market (3)	3.40	1.89