The Ghost Resident
A Hauntology of Data Invisibility in the Dutch BRP Data Assemblage

Alfonso Fernandez

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Supervised by
Professor Gerwin van Schie

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Contents

Abstract

This thesis explores the concept of the *ghost resident*, a notion that emerges within the Dutch governmental data assemblage to describe an individual who occupies a residential home but is not registered in the central population register. My analysis explores the notion of the ghost resident as a construction – one that exposes unregistered residents to a system that categorizes them as criminals through discursive and sociotechnical practices. The research departs from a critical exploration of anticipatory governance platform Zicht op Ondermijning, and explores the Dutch data assemblage which collects – or rather, I argue, makes – the data used by this platform. Zicht op Ondermijning constructs the notion of ghost habitation through administrative vacancy, meaning that occupancy is defined through data, rather than physically checking whether people occupy these residential addresses. As such, it is important to critically examine the categorizations and indicators selected to make up the data that represents real individuals. I call attention to different social groups which are rendered administratively invisible and potentially most affected by this construction, and I argue that this data assemblage can be considered a system of cultural denial.

Introduction

> "We can agree, I think, that invisible things are not necessarily "not-there"; that a void may be empty but not be a vacuum. In addition, certain absences are so stressed, so ornate, so planned, they call attention to themselves; arrest us with intentionality and purpose, like neighborhoods that are defined by the population held away from them."
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> - Toni Morrison

Things that are rendered invisible often leave traces; a part of them remains, existing in the margins. These remnants can interfere with the empirical structures that we use to understand our world – they can create anomalies, exceptions, objects of study which do not fit the frame of analysis. In other words, when something, or someone, becomes invisible, they are never fully gone. They remain in our world, as ghosts, and may haunt the very systems that rendered them invisible in the first place. How can we understand ghosts? How do they come to be? Jacques Derrida, in *The Specters of Marx*, argues that "there has never been a scholar who really, and as

scholar, deals with ghosts," because a traditional scholar does not believe in "the virtual space of spectrality," that in-between space existing among the real and the unreal.[1]

Years after Derrida, with the rise of digital cultures and data-driven technologies, this idea of the "virtual space" has become much more relevant. As John Cheney-Lippold argues in his book *We Are Data*, people are "made of data," although only "when that data is made useful."[2] As such, we are made subject to the interpretations of our data, resulting in an ontology emerging from the datafication of our selves, and the ensuing shaping of those selves by "the discourses that make us."[3] Ghosts exist, as I will argue in this thesis, within governmental data infrastructures. The datafication of government allows for the controlling of its subjects, through the infrastructures that uphold the constructed categorizations and discourses which in turn shape the subject's datafied self. It is through these constructions that the ghost becomes real.

In this paper, my main focus is on the construction of the *ghost resident* (or *spookbewoner*) – an individual who fails to register into the Dutch central population register, and as such is excluded, rendered invisible, from the central population register assemblage. The ghost resident itself is never explicitly defined by the Dutch government. Instead, its definition is implied and broadly understood through the definition of the *ghost habitation* (or *spookbewoning*), a residential home which is administratively vacant but where energy consumption is higher than a specified threshold.[4] I define the ghost resident as any individual that lives in a ghost habitation. While not explicitly defined anywhere, ghost residents are very much real. Constructed through data categorizations and discursive practices, a ghost resident can be almost anyone: a student, a squatter, an immigrant who lives in a residential address with

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[1] Jacques Derrida, *Specters of Marx: The State of the Debt, the Work of Mourning and the New International*, trans. Peggy Kamuf (New York: Routledge, 2006), 12.
[2] John Cheney-Lippold, *We are Data: Algorithms and the Making of our Digital Selves* (New York: New York University Press, 2017), 251.
[3] Cheney-Lippold, 265.
[4] "Leegstand," Zicht op Ondermijning, Accessed 25 January 2024, https://www.zichtopondermijning.nl/.

which they cannot register into the BRP. Indeed, any individual who cannot register into the

Dutch central population register becomes a ghost. The construction of the ghost resident

concept can be understood discursively, through processes of framing and categorization, as well

as sociotechnically, through registration and the selection of indicators emerging from the

governmental data assemblage.

The location of my research into ghosts is Zicht op Ondermijning (translated to English

as *View of Undermining*), an anticipatory governance dashboard that is open to the public and

intended for municipalities' use in making decisions informed by data. Emerging from a City

Deal partnership between various local and national institutions and authorities, this dashboard

provides every Dutch municipality with access to indicators and insights into local crime

tendencies, to strengthen their preventive approach to undermining crime phenomena.[5]

Undermining crime can be defined as "a form of organised crime by which criminals hide

criminal activities behind a legal façade, thus merging the legal and illegal worlds."[6]

The dashboard explores many different themes of undermining criminality. Zicht op

Ondermijning gets its data from many sources, but primarily from the CBS (*Centraal Bureau

voor de Statistiek,* or Statistics Netherlands),[7] and the BRP (*Basisregistratie Personen*, or the

Netherlands' central population register).[8] The dashboard has several themes of analysis,

including "vacancy" which explores the sub-categories of money laundering, hemp farms, and

ghost habitation (or *spookbewoning*). It is this last sub-category that this paper focuses on. Data

from Zicht op Ondermijning is used to advise policy-making for the policing of such habitations,

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[5] "Zicht Op Ondermijning: Local and Regional Data on Undermining Criminality, Combined in One Dashboard." (Zicht op Ondermijning, n.d.), accessed January 25, 2024.

[6] "Zicht Op Ondermijning: Local and Regional Data on Undermining Criminality, Combined in One Dashboard." (ICTU), accessed April 16, 2024, https://zichtopondermijning.nl > documents.

[7] "Wat Is Zicht Op Ondermijning?" (Zicht op Ondermijning), accessed January 25, 2024, https://www.zichtopondermijning.nl/.

[8] Kees Prins, "Population Register Data, Basis for the Netherlands Population Statistics," *Centraal Bureau Voor de Statistiek,* Bevolkingstrends, 2017, 2.

under the guise of the misuse of real estate for drug labs or illegal brothels, among other forms of crime. However, municipalities also indicate other reasons, such as the occupation of ghost habitations by unregistered residents, such as migrant workers.[9] It is these populations, invisibilized both within the infrastructure and by their very categorical definition, that will be the central case study analysed in this paper.

Understanding the position and construction of *ghost residents* within the governmental data structures requires an exploration of the BRP data system as a whole, from its input processes (the registration process as the making of data), to its output (the analysis of data within anticipatory governance models). Bowker and Star's concept-method of the infrastructural inversion[10] calls attention to the social and digital structures, such as the Dutch government data assemblage, that become invisible as they become increasingly prevalent and normalized in society. The infrastructural inversion allows me to start from the anticipatory governance dashboard Zicht op Ondermijning – with specific focus on the notion of ghost habitation which analyses housing-related issues and uses data from the CBS and BRP – to then work my way back through the data pipeline to its source: registration into the BRP.

Departing from an exploration of diverse scholarship on ghosts and haunting, this thesis takes a Critical Data Studies' approach to – through the notion of datafied governmentality – explore the discursive construction of ghost residents as a sociotechnical process which relies on ontologies and epistemologies created by processes of data registration, categorization, and anticipatory governance within the Dutch government's data assemblage. I will explore how

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[9] Maaike Kempes, Koen Voskuil, and Jasper Bunskoek, "Zorgen over toename spookwoningen: vaak wietplantage, drugslab of bordeel," *RTL Nieuws*, 23 december 2023, https://www.rtlnieuws.nl/onderzoek/artikel/5424182/criminelen-spookwoning-spookbewoning-woning-leegstand-hennepplantage.

[10] Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things out: Classification and Its Consequences*, Book, Whole (Cambridge, Mass.: MIT Press, 1999), https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=13186.

unregistered individuals – ghost residents – are discursively and sociotechnically constructed, categorized as criminals, and shaped by ontologies and epistemologies which may potentially expose them to increased policing practices rather than changing the very infrastructures that render them invisible in the first place. Through an infrastructural inversion, this paper (1) explores the discursive and infrastructural construction of ghost habitations in Zicht op Ondermijning; (2) follows the data present in this dashboard to its sources (notably the BRP and CBS); and (3) explores the registration logic into the Dutch BRP that allows for the emergence of ghosts.

The main research question that this paper will aim to answer is:

How is the *ghost resident* discursively and socio-technically constructed within the Dutch BRP data assemblage?

Some sub-questions to guide the research are:

- How is the ghost resident discursively constructed within Zicht op Ondermijning through the use of categories and risk indicators, as well as in public discourse?
- How is the ghost resident sociotechnically constructed within and by the digital infrastructures of the Dutch governmental data assemblage?
- How are the data invisibilities created within the Dutch governmental data assemblage produced from existing inequalities within the Dutch sociopolitical context?

Theoretical Framework

Ghosts and haunting

The idea of ghosts and haunting has long existed in academia through a wide range of definitions. In science and data, ghosts are "that which is not expected or part of the purported

object of inquiry;"[11] in statistics the term *ghost population* represents "the collective effect of unsampled populations on estimates of migration rates among populations sampled;"[12] as well as appearing in anthropology in moments of rapture and change.[13] In migration studies, "dreams and ghosts are terms that migrants themselves invoke to explain and situate their migration," appearing as reminders of the past which shape and disrupt the present.[14] Avery Gordon, in her 1997 book *Ghostly Matters*, discusses the idea of ghosts and ghost stories as "a constant negotiation between what can be seen and what is in the shadows,"[15] forces of social and systemic structures that have impacts in people's lived realities.[16] A *haunting*, she describes as "the sociality of living with ghosts," which is both material and intangible,[17] a "shadow of a life" which wants to transform "into an undiminished life" through peaceful reconciliation.[18]

The notion of a haunting is a complex one to define, since it exists neither entirely physically, nor entirely virtually, and it cannot be empirically observed. Instead, a haunting points to things that exist relationally, in the tension between the visible and the invisible, the tangible and the ephemeral. The ghost, then, is "just the sign, or the empirical evidence[...], that tells you a haunting is taking place."[19] It may then be difficult to perfectly define a ghost, as every ghost will be different in relation to its haunting. The haunting, then, must be explored,

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[11] Ezekiel Dixon-Román, "Toward a Hauntology on Data: On the Sociopolitical Forces of Data Assemblages," *Research in Education* 98, no. 1 (August 1, 2017): 46, https://doi.org/10.1177/0034523717723387.

[12] Montgomery Slatkin, "Seeing Ghosts: The Effect of Unsampled Populations on Migration Rates Estimated for Sampled Populations," *Molecular Ecology* 14, no. 1 (January 2005): 67, https://doi.org/10.1111/j.1365-294X.2004.02393.x.

[13] Andrea Wright, *Between Dreams and Ghosts: Indian Migration and Middle Eastern Oil* (Redwood City, UNITED STATES: Stanford University Press, 2021), 90, http://ebookcentral.proquest.com/lib/uunl/detail.action?docID=7012569.

[14] Wright, 10.

[15] Avery F. Gordon and Janice Radway, *Ghostly Matters: Haunting and the Sociological Imagination* (Minneapolis, United States: University of Minnesota Press, 2008), 17, http://ebookcentral.proquest.com/lib/uunl/detail.action?docID=346045.

[16] Gordon, 19.

[17] Gordon, 201.

[18] Gordon, 208.

[19] Gordon, 8.

through an analysis of the sociopolitical and historical systems that enable the emergence of the ghost.

When it comes to a haunting in the world of data, I argue, the ghost is always constructed. Scholars in the field of Critical Data Studies have paid attention to the fabricated nature of data, such as Neumayer, Rossi, and Struthers, who view data as made, not found,[20] as well as authors like Kitchin and Lauriault who view data as "never raw but cooked to some recipe by chefs embedded within institutions that have certain aspirations and goals and operate within wider frameworks."[21] Consequently, every invisible element emerges from a choice of exclusion, whether this be intended or not. Invisibility does not just happen by itself: visibility is a process, one that is context-dependent because it is set in a "particular technical, political, and social arrangement,"[22] emerging from structural systems. As Taina Bucher argues, departing from Foucault's notion of Panopticism, (in)visibility can be understood as a production that emerges from systems constructed on digital architectures.[23] These architectures are constructed on collected data which should be understood, and therefore studied, as directly embedded in the context and power structures from which they emerge.

Such is Kitchin and Lauriault's concept of the data assemblage, which considers data structures as more than simply the system/infrastructure itself, but also constituted by "all of the technological, political, social and economic apparatuses that frame their nature, operation and work."[24] For Dixon-Roman, the data assemblage always consists of sociopolitical relations, or

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[20] Christina Neumayer, Luca Rossi, and David M. Struthers, "Invisible Data: A Framework for Understanding Visibility Processes in Social Media Data," *Social Media + Society* 7, no. 1 (January 1, 2021): 4, https://doi.org/10.1177/2056305120984472.

[21] Rob Kitchin and Tracey P. Lauriault, "Toward Critical Data Studies: Charting and Unpacking Data Assemblages and their Work," in *Thinking Big Data in Geography: New Regimes, New Research* (UNP - Nebraska, 2018), 5

[22] Neumayer, Rossi, and Struthers, 2.

[23] Taina Bucher, "Want to be on the Top? Algorithmic Power and the Threat of Invisibility on Facebook," *New Media & Society* 14, no. 7 (2012): 1165, doi:10.1177/1461444812440159.

[24] Kitchin and Lauriault, "Toward Critical Data Studies," 8.

"the structural relations of power and ''difference'' that include race, gender, class, and sexuality among others," and carries within it an unconscious history of its data, thus calling attention to its political importance.[25] The data assemblage, then, goes much further than the data that has been selected to exist within it, as the sociopolitical power structures that enable these digital systems must also be critically considered.

In *The Specters of Marx*, Derrida explores the interrelation of culture and politics, of past and present.[26] He coins the term "hauntology," using a combination of the words *haunting* and *ontology* to reflect the idea that our present is shaped by ideas and elements from our sociocultural past.[27] As data assemblages are constituted not only of the data structures within them but also of the sociopolitical ones that shape thought and discourse, they can be understood to be haunted by the inclusions and exclusions that are designed into the categorizations of their constituents. It is from these decisions – which data are selected, which are rendered visible, and which remain invisible – that a haunting can take place, and, consequently, that ghosts emerge.

Datafied governmentality

Many authors have explored the notion of the datafication of government within the field of Critical Data Studies. As Rottenburg and Merry explain, a datafied government relies on the idea that modern societies and democratic governments are "inconceivable without numeric representation in the running of affairs,"[28] and that data are active productions of the infrastructures that collect and process them.[29] The datafication of government consists in

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[25] Dixon-Román, 46-48.
[26] Derrida, 10.
[27] Derrida, 10.
[28] Richard Rottenburg and Sally Engle Merry, "A World of Indicators: The Making of Governmental Knowledge through Quantification," in *The World of Indicators: The Making of Governmental Knowledge through Quantification*, ed. Johanna Mugler et al., Cambridge Studies in Law and Society (Cambridge: Cambridge University Press, 2015), 6, https://doi.org/10.1017/CBO9781316091265.001.
[29] Rottenburg and Merry, 4.

censuses, classification systems, population databases, and other such projects that attempt to

make society legible[30] – a governmental data assemblage that depicts a picture of society, but

only that which the state authority wants to show. As James Scott argues, governments enable

"much of the reality they [depict] to be remade."[31] For many European countries, one important

tool for this statistical construction is the central population register.

The establishment of central population registers is crucial to the emergence and

prevalence of datafied governments. Introduced in Europe since the 1960s,[32] first introduced in

the Netherlands in 1994,[33] these databases have become an important administrative and

statistical data tool,[34] often accompanied by the social narrative that all citizens are registered and

thus covered by these systems.[35] Central population registers are "primarily an administrative

tool and secondarily a statistical data collection tool," with administrative rules taking

precedence.[36] This is important to note because it means that the data collected, as well as the

categorizations created to organize it, are created primarily for administrative purposes and are

later repurposed for making statistical and bureaucratic decisions. Systems that use this data,

then – such as anticipatory governance models or crime prediction dashboards embedded in the

data assemblage – end up using data which "already happens to be part of existing bureaucratic

practice, often collected with entirely different intentions."[37] As part of the data assemblage,

inextricably linked to social, cultural, political, and economic forces, these databases are tools

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[30] James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition have Failed*, Veritas paperbacks edition ed. (New Haven: Yale University Press, 2020), 2.
[31] Scott, 3.
[32] Michel Poulain, Anne Herm, and Roger Depledge, "Central Population Registers as a Source of Demographic Statistics in Europe," *Population* 68, no. 2 (2013): 188, DOI:10.3917/pope.1302.0183.
[33] Poulain, Herm, and Depledge, 188.
[34] Poulain, Herm, and Depledge, 191.
[35] Robben, Pierre, and Hermans, 566.
[36] Poulain, Herm, and Depledge, 191.
[37] Gerwin van Schie, *The Datafication of Race-Ethnicity: An Investigation Into Technologically Mediated Racialization in Dutch Governmental Data Systems and Infrastructures*, 2022, 142-3.

that not only analyse but also construct certain realities about their population – they are important infrastructures whose sociopolitical context must be studied to understand the power dynamics that are embedded into the governmental data assemblage. Central population registers, on one hand, are an important component of the governmental data assemblage, and, on the other hand, enable practices of datafied governmentality.

Governmentality can be understood, following Kitchin, Coletta, and McArdle's definition of the Foucauldian concept, as the "logics, rationalities and techniques that render societies governable and enable government and other agencies to enact governance."[38] In other words, data assemblages can be explored as interrelated networks of discourses and structures which enable the governing of bodies through methods of quantification and classification. The notion of datafied governmentality allows us to better grasp the notion of data as made rather than found,[39] as it makes visible their construction through systems of categorization and decisions that point to important questions which have been raised by authors like Cheney-Lippold[40] and D'Ignazio and Klein:[41] *what is counted, and who counts?*

The question of "who counts?", I argue, has a double meaning, as it calls for an examination of *who is being counted*, but equally as importantly, *who does the counting?* In answering these questions, some authors point to the automatization of inequality and how discrimination is facilitated by automated systems,[42] as well as pointing to the importance of understanding the role of humans within the creation of datafied systems that facilitate the task

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[38] Rob Kitchin, Claudio Coletta, and Gavin McArdle, "Governmentality and Urban Control," in *The Routledge Companion to Smart Cities* (Routledge, 2020), 109.
[39] Neumayer, Rossi, and Struthers, 4.
[40] Cheney-Lippold.
[41] Catherine D'Ignazio and Lauren Klein, "What Gets Counted Counts," *Data Feminism* (2020), https://data-feminism.mitpress.mit.edu/pub/h1w0nbqp/release/3.
[42] Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*, First edition, (New York, NY: St. Martin's Press, 2018).

of systematizing inequality.[43] Inequality is systematized at many levels: from social sorting

through processes of categorization and classification, to the creation of ontologies and

epistemologies that emerge from the analytical and visualizing effects of anticipatory governance

models.

Using information from population statistics for making decisions about their governing

is a form of predictive profiling referred to as anticipatory governance.[44] In anticipatory

governance, "predictive analytics are used to assess likely future behaviours or events and to

direct appropriate action," which are part of an ontological "looping effect" in which the

knowledge produced within a data system reinforces the system itself and leads to the

normalization of certain truth claims.[45] Further, models of anticipatory governance are

accompanied by "a technocratic rationality assum[ing] human mobility can be approached as a

problem that can be solved unidirectionally" and in which technologies have an expected causal

role in problem-solving.[46] One such example is the predictive crime dashboard, a policing tool

that uses "automated risk assessments [...] to determine people's likelihood of committing a

crime."[47] Shannon Mattern explores these visualizations as being reactive measures that result in

superficial "Band-Aid" solutions, and she urges that we instead focus on the root causes of

inequities.[48] The emergence of both policy and policing from models of anticipatory governance

can be understood as part of the process of datafied governmentality – a sociotechnical process

in which governance and meaning-making projects are facilitated by the digital infrastructures

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[43] Koen Leurs and Tamara Shepherd, "Datafication & Discrimination," *The Datafied Society: Studying Culture Through Data,* 2017, https://mediarep.org/handle/doc/13365.
[44] Rob Kitchin and Tracey Lauriault, "Towards Critical Data Studies: Charting and Unpacking Data Assemblages and Their Work," SSRN Scholarly Paper (Rochester, NY, July 30, 2014), https://papers.ssrn.com/abstract=2474112.
[45] Kitchin and Lauriault.
[46] Leurs and Shepherd, 8.
[47] Shannon Christine Mattern, *A City is Not a Computer: Other Urban Intelligences*, (Princeton, New Jersey: Princeton University Press, 2021), 39.
[48] Mattern, 40.

used by governing bodies. Both the *socio* and the *technical* aspects are important to note here, as both serve in the shaping of ontology and epistemology. The discursive and infrastructural practices of a datafied government must then be critically examined, as it is through this examination that the data elements which have been rendered invisible can become observable once again.

Discriminatory discursive construction – a sociotechnical process

The construction of discourse happens through different processes. Brouwer, van der Woude, and van der Leun argue that "framing" is an important part of discursive processes, highlighting the importance of not only *what* the media talks about, but rather "*how* they write about these topics,"[49] in other words, "select[ing] some aspects of a perceived reality and mak[ing] them more salient in a communicating context."[50] The perceived legitimacy and totality of central population register assemblages – often supported by other narratives framing digital methods as objective, such as the myth of big data which disregards the *selected* and constructed nature of data[51] – helps to reinforce the narrative of datafied government as being impartial and objective. This notion is complicated, however, by holes in the data – administrative invisibilities – which are quite difficult to grasp specifically due to their invisible nature.

Further, marginalized groups often suffer consequences of discriminatory datafied systems through social sorting and racialized algorithms,[52] and are affected by the discourses and structures that create ontologies and epistemologies ingrained throughout the governmental data

[49] Jelmer Brouwer, Maartje van der Woude, and Joanne van der Leun, "Framing Migration and the Process of Crimmigration: A Systematic Analysis of the Media Representation of Unauthorized Immigrants in the Netherlands," *European Journal of Criminology* 14, no. 1 (2017): 102, https://doi.org/10.1177/1477370816640136.
[50] Robert M. Entman, "Framing: Toward Clarification of a Fractured Paradigm," *Journal of Communication* 43, no. 4 (1993): 52, https://doi.org/10.1111/j.1460-2466.1993.tb01304.x.
[51] Nick Couldry, "The Myth of Big Data," in *The Datafied Society: Studying Culture through Data* (Amsterdam: Amsterdam University Press, 2017), 235–40, https://mediarep.org/handle/doc/13376.
[52] Leurs and Shepherd, 212.

assemblage. Diversity discourse exists in the Netherlands, but, as Bosma argues, it hardly

resonates in policymaking.[53] Within governmental data assemblages, people with a migration

background, for example, often face different types of categorizations, such as their categorical

inclusions through the datafication of race-ethnicity.[54] These categorizations are all part of a

larger framework of governmental discourse, which makes certain choices about the

categorization of persons in relation to their ethnic and migratory background. While a lot of

importance is given to popular media in the shaping of public perception, a study by Brouwer et

al. points to an interesting finding: "the framing of migrants as criminals is a more diffuse

process in which the media seem to follow rather than fuel politics and policy."[55] This points to

the importance of policy-making and discourse within governmental spheres, which may in turn

shape the public discourse around a specific issue.

In datafied government, discrimination becomes a socio*technical* process, embedding

social beliefs into different parts of the data assemblage. Thus, the Dutch sociopolitical context is

reflected as well as reinforced within digital structures of discrimination shaped by what Virginia

Eubanks (following Stanley Cohen[56]) refers to as cultural denial – a societal process of being

aware of injustice and oppression without acknowledging them[57] – which becomes automated in

governmental systems that reinforce the construction of ghost residents. Kuster and Tsianos

consider it an "analytical and political error to study migrants as disconnected from the

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[53] Bosma, 210.

[54] Gerwin van Schie, Alex Smit, and Nicolás López Coombs, "Racing through the Dutch Governmental Data Assemblage: A Postcolonial Data Studies Approach," *Global Perspectives* 1, no. 1 (2020): 4, https://doi.org/10.1525/gp.2020.12779.

[55] Brouwer, van der Woude, and van der Leun, 113.

[56] Stanley Cohen, *States of Denial: Knowing about Atrocities and Suffering* (Cambridge, UK, Malden, MA: Polity ; Blackwell Publishers, 2001).

[57] Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (New York: St. Martin's Publishing Group, 2018), 175.

functioning of the information and control systems that are linked to their mobility."[58] Information and control systems linked to population registers and statistics specifically cannot themselves be studied as disconnected from the flow of bodies that they attempt to study, and the ways in which categorizations and classifications are created play an important role in the ontologies and epistemologies that shape these groups.

Methodology

This paper carries out an infrastructural inversion of the BRP data assemblage in relation to ghost habitations, complemented by critical discourse analysis, enabling a study of the structural and discursive construction of the ghost resident within the Dutch governmental data assemblage. The analysis will explore the constructed ontologies and epistemologies created by categorization as well as the conditional process of residence-based registration through the case study of Zicht op Ondermijning's "ghost habitation."

The infrastructural inversion is a method developed by Bowker and Star which makes visible the infrastructures that tend to "fade into the woodwork" when set in place and normalized in society. This method focuses on "recognizing the depths of interdependence of technical networks and standards, on one hand, and the real work of politics and knowledge production on the other."[59] Three of the themes of this method that Bowker and Star highlight are notably important for my analysis: the notions of ubiquity, indeterminacy of the past, and practical politics.[60] In other words, using an infrastructural inversion of the BRP data assemblage takes the form of an exploration of the centrality of datafication in the process of

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[58] Brigitta Kuster and Vassilis S. Tsianos, "Erase them! Eurodac and Digital Deportability," trans. Erika Doucette and Sam Osborn, *transversal texts*, accessed April 16, 2024, https://transversal.at/transversal/0313/kuster-tsianos/en.
[59] Bowker and Star, 34.
[60] Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things Out: Classification and its Consequences* (Cambridge, Mass.: MIT Press, 1999), 37-44.

governmentality, its situatedness in a particular socio-historical context which can affect certain

populations more than others, and the consequent ontologies and epistemologies that are created

through this construction. By using this method of analysis, I aim to provide a holistic

understanding of the Dutch BRP data assemblage by following the data from its point of

inception through registration to its practical applications in anticipatory governance, thus

making more visible the constructed nature of the ghost resident within a datafied government.

Throughout this infrastructural inversion, I will be using Critical Discourse Analysis

(CDA) to analyse the power structures that become visible within these governmental texts, with

specific focus on how ghost habitations are discursively constructed by the Dutch government

and within public discourse. I will follow Norman Fairclough's approach to CDA, as presented

by Jorgensen and Phillips,[61] for its focus on a couple of key factors. First, Fairclough's discourse

focuses on the *dialectical relationship* of discourse with other social practices, meaning it "does

not just contribute to the shaping and reshaping of social structures but also reflects them."[62] This

type of approach allows for a more nuanced analysis that does not fall into social or

technological determinist perspectives, but rather considers the constant informing and reshaping

that technologies and sociocultural practices have on one another. As such, my analysis focuses

on the categories used for defining ghost habitation, as well as the associated risk indicators. I

look at the terms that Zicht op Ondermijning uses to refer to ghost residents, as well as how these

are defined in the public sphere through an analysis of newspaper articles. For Fairclough,

"discourse is just one among many aspects of any social practice,"[63] which is important in my

analysis since both the discursive and the structural practices that construct the concept of the

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[61] Marianne Jørgensen, and Louise J. Phillips, "The Field of Discourse Analysis," *Discourse analysis as theory and method*, (Sage: London, 2008), https://utrechtuniversity.on.worldcat.org/v2/oclc/974095631.
[62] Jørgensen and Phillips.
[63] Jørgensen and Phillips.

ghost resident will be explored. In other words, while the analysis of discourse to define the ghost resident is important, so is the critical exploration of the data used to support this construction. Therefore, in this paper I explore the different data sources that constitute the database used for the Zicht op Ondermijning platform, with a specific focus on registration into the Dutch BRP, which requires a residential address.

Through my analysis, I keep in mind three of Paul Gee's tools for doing CDA: the Frame Tool, the Identity Building Tool, and the Figured World Tool.[64] These are important in understanding how discourse is contextualized within anticipatory governance models, how the identities of ghost residents are constructed, and the ensuing assumptions about unregistered individuals that arise from discourse. By complementing the infrastructural inversion with CDA, this paper attempts to take a more holistic approach in understanding both the *social* and the *technical* facets of the Dutch sociotechnical governmental data assemblage. This paper, ultimately, can itself be considered a *hauntology*, one in which aim to make visible the ghosts that have been constructed through different categorizations and data infrastructures in the BRP data assemblage, and to expose the double haunting that is taking place: the haunting of anticipatory governance models by administratively invisibilized residents, and the haunting of these residents by a system that allows for their invisibility. In doing so, the analysis takes the following structure:

1. Begins with an exploration of the anticipatory governance dashboard Zicht op Ondermijning, with a specific focus on the notion of "ghost habitation" within the "vacancy" category;

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[64] James Paul Gee, *How to do discourse analysis: a toolkit*, 4th ed, (Milton Park, Abingdon, Oxon: Routledge, 2014), http://proxy.library.uu.nl/login?url=http://uunl.eblib.com/patron/FullRecord.aspx?p=1600495.

2. Continues with an analysis of the discursive and sociotechnical ways in which the ghost resident is categorized and linked to other risk indicators within Zicht op Ondermijning, as well as in public discourse;

3. Follows the data used for Zicht op Ondermijning to its different sources, analysing the BRP's residence-based registration's logic to explore the processes that render individuals invisible within the BRP assemblage;

4. Critically considers the power structures that allow for discriminatory practices of marginalized people in the Dutch sociopolitical context.

Analysis

Zicht op Ondermijning - a model of anticipatory governance

1.a - What is Zicht op Ondermijning?

Zicht op Ondermijning (translated to English as *View of Undermining*) is an anticipatory governance dashboard that is open to the public and intended for municipalities' use in taking decisions informed in data. Created in the summer of 2017, emerging from a City Deal partnership between eleven local and national authorities, this dashboard provides every Dutch municipality with access to indicators and insights into local crime tendencies, to "strengthen their preventive approach to undermining crime phenomena through new methods of data analysis."[65] The original City Deal brings together the mayors and the boards of mayor and aldermen of five Dutch municipalities, the Minister of Security and Justice, the State Secretary of Finance, the Minister of the Interior and Kingdom Relations, the director general of the Central

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[65] "Zicht Op Ondermijning: Local and Regional Data on Undermining Criminality, Combined in One Dashboard."

Bureau of Statistics, the chief of police, and the chairman of the Board of Attorneys General.[66]

More municipalities join the project in its second phase, in 2019.[67] These parties contribute in

different ways, either by providing data, analytical tools, or consultancy, and "the net

contributions of the Parties are used for the common costs of [the ICTU Foundation], CBS and

the universities,"[68] meaning that the parties are reimbursed for their costs, rather than making a

profit from the City Deal.

Undermining crime is defined by the platform as "a form of organised crime by which

criminals hide criminal activities behind a legal façade, thus merging the legal and illegal

worlds."[69] In the original Dutch, these are referred to as *bovenwereld* (or *upper world*), and

onderwereld (or *underworld*),[70] which interestingly present a dualist connotation of a real, human

world, and a spectral, unworldly realm. The criminal undermining activities that the dashboard

aims to render visible to municipalities are grouped into two main themes, real estate abuse and

drug problems,[71] which include analyses of abuse of real estate, hemp farms, money laundering,

and vacancy, among others.[72] The subcategory of ghost occupation is found under the "vacancy"

category. Figure 1 is a screenshot from the Zicht op Ondermijning dashboard, visualizing the

ghost habitation subcategory. The dashboard uses data from many sources, primarily the CBS

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[66] "City Deal Zicht op ondermijning," Staatscourant van het Koninkrijk der Nederlanden, official publication, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, August 29, 2017, https://zoek.officielebekendmakingen.nl/stcrt-2017-48699.html.
[67] "Rapportage voor de Tweede Kamer City Deal Zicht op Ondermijning," (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, November 2021), 4.
[68] "City Deal zicht op ondermijning," Staatscourant van het Koninkrijk der Nederlanden.
[69] "Rapportage voor de Tweede Kamer City Deal Zicht op Ondermijning," 1.
[70] "Zicht op Ondermijning: Dashboard met Lokale en Regionale Inzichten over Ondermijning" (ICTU), accessed April 16, 2024, https://zichtopondermijning.nl > documents.
[71] "Rapportage voor de Tweede Kamer City Deal Zicht op Ondermijning," 4.
[72] "Zicht Op Ondermijning," Zicht op Ondermijning, accessed January 25, 2024, https://www.zichtopondermijning.nl/.

(*Centraal Bureau voor de Statistiek,* or Statistics Netherlands)[73], which itself obtains much of its data from the BRP (*Basisregistratie Personen*, or the Netherlands' central population register).[74]
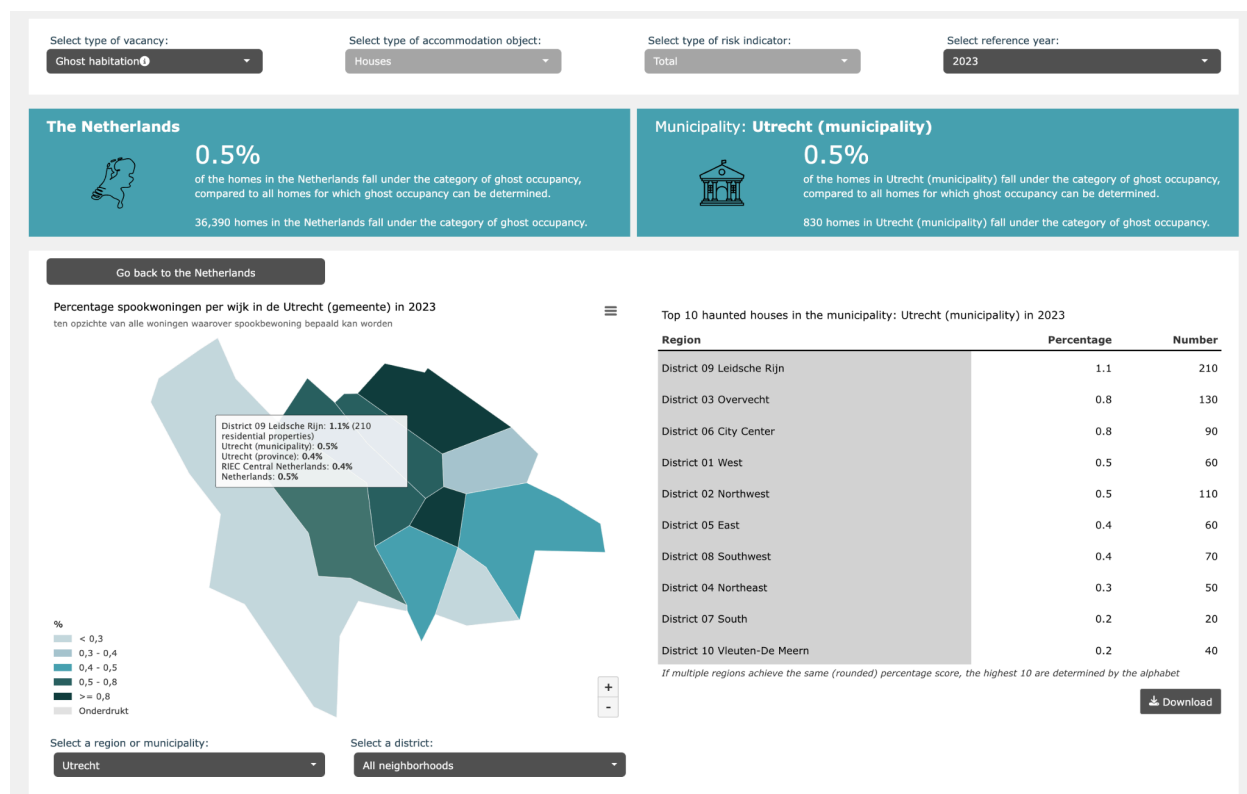
Figure 1: Zicht op Ondermijning dashboard,
visualizing the "ghost habitation" type of vacancy.

In its public report, Zicht op Ondermijning highlights the importance of the dashboard in making "an important contribution towards improving safety and liveability at the community level."[75] The dashboard itself is not meant as a tool to be used directly by police officers – while it may result in changes to policing practices (for example focusing more policing in a certain area), there is still a process of discussion and concertation that happens between multiple actors

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[73] "Zicht Op Ondermijning," https://www.zichtopondermijning.nl/.
[74] Prins, 2.
[75] "Zicht Op Ondermijning: Local and Regional Data on Undermining Criminality, Combined in One Dashboard."

before it reaches the stage of policing. The dashboard is then a model of anticipatory governance, itself becoming a data infrastructure that may lead to predictive policing practices, but not in itself a predictive policing dashboard. Data from the CBS is at the heart of the dashboard, used for its potential to "help increase society's resilience to undermining."[76] The dashboard works under the assumption that this data is "reliable," and is in turn used for cooperative work between the municipalities and police forces, leading into new research questions and promising search areas in the goal of improving preventive supervision.[77]

1.b: Legitimization through data

The dashboard combines multiple data sources, anonymizes the data, and assures untraceability. Throughout the report there is a salient language of reliability of the dashboard. There are multiple mentions of "effectiveness" and "reliability," reflecting a technocratic rationality that presents the dashboard as a needed tool to improve governmentality. The dashboard points to potential flaws in that the results displayed may depend on "the way in which municipalities maintain their basic registers,"[78] but there is little critical discussion about the implied assumption that the municipalities collection methods may be flawed. For example, there seems to be no questioning of the collection or categorization methods from BRP and CBS data, again reinforcing the common belief that these databases cover the entire population.[79]

Zicht op Ondermijning has several themes of analysis, including "vacancy" which explores the sub-categories of money laundering, hemp farms, and *ghost habitation* (or *spookbewoning*) – an accommodation property with residential function that is administratively

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[76] Ibid.
[77] Ibid.
[78] "Leegstand." Zicht op Ondermijning.
[79] Robben, Pierre, and Hermans, 566.

vacant according to the BRP, but where energy consumption is higher than a specified threshold.[80] Data from Zicht op Ondermijning is used to advise the policing of such habitations, under the guise of the misuse of real estate for drug labs or illegal brothels. However, municipalities also indicate other reasons, such as the occupation of ghost habitations by unregistered residents, such as migrant workers.[81]

Who lives in ghost habitations?

2.a - Ghost habitations

Among Zicht op Ondermijning's categories of analysis, "vacancy" explores the sub-categories of money laundering, hemp farms, and *ghost habitation* (or *spookbewoning*). This last sub-category is defined in the dashboard as follows:

> "An object with a residential function that was empty on January 1 of the reporting year as well as on January 1 of the previous year and where energy consumption is measured according to a given threshold value. After all, when it is vacant you expect relatively little energy to be consumed. Energy consumption can therefore give an indication that an administratively vacant object is still in use."[82]

In order to define ghost habitation, the dashboard relies on what they refer to as administrative vacancy, which happens "if no person is registered there according to the BRP, if there is no user according to the WOZ and if there is no registration as a company in the Trade Register (HR). It is not actually tested whether people live there."[83] Ghost habitations are then defined administratively, using indicators based on individuals' (lack of) registration within the

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[80] "Leegstand." Zicht op Ondermijning.

[81] Maaike Kempes, Koen Voskuil, and Jasper Bunskoek, "Zorgen over toename spookwoningen: vaak wietplantage, drugslab of bordeel," *RTL Nieuws*, 23 december 2023, https://www.rtlnieuws.nl/onderzoek/artikel/5424182/criminelen-spookwoning-spookbewoning-woning-leegstand-he nnepplantage.

[82] "Leegstand." Zicht op Ondermijning.

[83] Ibid.

BRP and other databases, rather than physically checking whether a home may actually be occupied. The dashboard analyses vacancy in relation to undermining, meaning that other "indicators of undermining" are linked to administrative vacancy, which "can indicate various forms of real estate misuse, for example safe houses and locations for the storage, production and trafficking of drugs," as well as money laundering.[84] Some of the subversive offenses that become indicators linked to undermining crime include deception, fraud, property crime, and others. A complete list of the indicators used is displayed in Figure 2.

Indicators of Undermining	Related Laws
Deception	Fraud (WvSr art. 326), Bottlenecking (WvSr art. 326a), Deception (other) (WvSr art. 326b-338)
Forgery crime	Currency crime (WvSr art. 208-214), Forgery in stamps and brands (WvSr art. 216-223), Forgery in writings (WvSr art. 225-234)
Heling (=Handling stolen goods)	Heling (WvSr art. 416-417bis)
Extortion and threat	Extortion and extortion (WvSr art. 317-318)
Property crime (Other)	Bankruptcy (WvSr art. 340-343), Money laundering (WvSr art. 420bis-420quater), Property crime (Other) (WvSr art. 314-315, 344-348)
Other violent crime	Human trafficking (WvSr art. 273f), Other violent crime (WvSr art. 274-281, 307-308)
Drug crimes	Hard drugs (Opium Act art. 2), Soft drugs (Opium Act art. 3)
(Fire)weapons crimes	(Fire)weapons crimes

Figure 2: Indicators linked to undermining.[85]

Criminality indicators are then linked to administrative vacancy to explore the potential of different criminal activities happening. Figure 3 – which originates from a "ghost habitation campaign" created by several municipalities and the Dutch police[86] – illustrates several different

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[84] "Vastgoed." *Zicht op Ondermijning,* Accessed 11 March 2024, https://www.zichtopondermijning.nl/.
[85] "Leegstand." Zicht op Ondermijning.
[86] "Infographic actie Spookbewoning," publication, *Openbaar Ministerie* (Ministerie van Justitie en Veiligheid, December 9, 2020), https://www.om.nl/documenten/publicaties/om-onderdelen/oost-brabant/map/infographic-spookbewoning.

forms of criminality that are grouped under the common understanding of ghost habitations. It is interesting to note that certain of these activities can be considered active actions (*hennepteelt* (or hemp cultivation), *signalen malafide verhuur* (or signs of rogue rental), *adresfraude* (or address fraud)), while others are passive actions, not *undertaken by* the inhabitants of ghost habitations, but rather *done to* them: these include *migranten-huisvestingsproblematiek* (or migrant housing issues) and *arbeidsuitbuiting* (or labour exploitation). Several news articles also mention that municipalities who look into ghost habitations often run into unregistered individuals – often labour migrants – living in ghost habitations.[87] Ghost habitations in which unregistered residents are living are claimed to pose dangers for reasons such as fires breaking out and "the fire brigade respond[ing] to an empty home."[88] In the Zicht op Ondermijning dashboard itself, there is no mention of unregistered individuals. Unregistered residents are then discursively constructed as consequential of ghost habitation: emerging as unintended by-product of the policing of ghost habitations, and rarely presented as active stakeholders, they are constructed as specters whose well-being is not considered, but who can cause nuisance for the municipality's registered residents.

Lacking multiple definitions for different types of habitation, from an administrative perspective, renders drug and fraud-related ghost habitations equal to ghost habitations emerging from non-registration. In other words, a ghost habitation can either be used as a front for criminal activities, or it can actually be a residence for an unregistered individual. These two situations are – by definition – the same within the dashboard. Municipalities seem to be aware that the policing of ghost habitations leads to the discovery of unregistered populations, as Leeuwaarden

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[87] "Spookwoningen zorgen voor problemen bij verhuurders," *Platform Veilig Ondernemen*, January 17, 2024, https://pvo-nl.nl/nieuws/spookwoningen-zorgen-voor-problemen-bij-verhuurders/;
"Spookwoningen zorgen voor overlast," *Zoetermeer actief*, February 6, 2024, https://www.zoetermeeractief.nl/nieuwshome/politiek/26411-spookwoningen-zorgen-voor-overlast.

[88] Martijn Dankers Dankers, "Spookwoningen niet allemaal in beeld bij de gemeente Wijchen," *rn7*, February 7, 2024, https://www.rn7.nl/55755-spookwoningen-niet-allemaal-in-beeld-bij-de-gemeente-wijchen-.

mayor Buma points out in an interview with *RTL Nieuws*.[89] The fact that unregistered populations are not mentioned in the dashboard but are an obvious consequence of the dashboard's analysis can be considered a form of cultural denial, in which the creators of Zicht op Ondermijning may be aware of the problem of under-registration without taking any action in fixing it.

Figure 3: "Results of the ghost habitation campaign"

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[89] Kempes, Voskuil, and Bunskoek, "Zorgen over Toename Spookwoningen: Vaak Wietplantage, Drugslab of Bordeel."

2.b - The ghost resident

There are, then, two broad contexts from which ghost habitation may arise. First, there is the context that Zicht op Ondermijning is explicitly trying to combat: ghost habitation emerging from criminal activities like drug production or trafficking, or money laundering, and there is also the other side of the coin, or ghost habitation emerging from unregistered individuals. In this case, a ghost habitation is actually a *habitation*, implying residence. It is from this implication that the *ghost resident* is defined. The ghost resident – as a physical individual – is never mentioned in the website. Instead, they are defined through the loose categories which discursively group unregistered populations within the same frame as criminals involved in drug trafficking and money laundering.

Within public discourse, the concept of "the ghost resident," while being explicitly named in a couple of instances,[90] is also not properly defined itself, and the ways that people who live in ghost habitations are described vary from one news source to another. Throughout different news sources, two main descriptions of this categorization come back: the ghost resident as a criminal, and the ghost resident as an immigrant (although the latter category does not often shy away from pointing to the so-called "illegality" of these immigrants). While talking about inspectors "finding warehouses for cocaine or weapons," for example, *PVO* also speaks about the finding of "residences for illegal immigrants."[91] Other news sources refer somewhat more neutrally to "migrant workers."[92] Interestingly, within public discourse, there do not seem to be instances of policing of ghost habitations resulting in the discovery of unregistered

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[90] "Spookwoningen zorgen voor problemen bij verhuurders," *Platform Veilig Ondernemen*; "Spookbewoning 'crimineel' en 'ondermijnend', maar wat is het nou precies?," *West*, March 5, 2019, https://www.omroepwest.nl/nieuws/3773754/spookbewoning-crimineel-en-ondermijnend-maar-wat-is-het-nou-preci es.

[91] "Spookwoningen zorgen voor problemen bij verhuurders," *Platform Veilig Ondernemen*.

[92] "Spookwoningen zorgen voor overlast," *Zoetermeer actief*.

residents who are not immigrants: these discoveries are always discursively paired to the idea of "illegal" immigration.

It is important to note that squatters also fit into the categorization of the ghost resident. Indeed, squatters occupy a residential home without a lease and without paying rent. Often associated with the idea of the "militant squatter," or an individual who occupies a home as a political act of defiance – or because this individual does not have recourse to other options – the squatting movement gained traction throughout the second half of the twentieth century, but "the practice of squatting is currently near extinct in the Netherlands."[93] As such, squatters are mostly outliers in the composition of ghost residents, but should still be mentioned in the conversation.

While certain news sources do explicitly name ghost residents as such, no real definition is given, but the group is still mainly categorized pejoratively. From the onset, the term *ghost* already carries negative connotations, evoking not only the discomfort of being haunted but also the difficulty of physically removing a ghost from the place they are haunting. Ghost residents are further vilified, for example in articles that mention homeowners who have "fallen victim" to a ghost resident.[94]

By discursively framing homeowners as unknowing victims to ghost residents, articles such as this place the burden of criminality on unregistered residents. In instances where unregistered immigrants are discovered through the policing of ghost habitations, this can reinforce the notion of perceived illegality that is often associated with unregistered migrants, who are also, when living unregistered, more at-risk to falling into housing fraud or labour exploitation.[95] By lacking precision to their definitions, Zicht op Ondermijning is thus allowing

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[93] Bart van der Steen, Charlotte van Rooden, and Merel Snoep, "Who Are the Squatters? Challenging Stereotypes through a Case Study of Squatting in the Dutch City of Leiden, 1970-1980," *Journal of Urban History* 46, no. 6 (2019): 1191–1425, https://doi.org/10.1177/0096144219843891.
[94] "Spookbewoning 'crimineel' en 'ondermijnend', maar wat is het nou precies?" *West*.
[95] Maaike Kempes, Koen Voskuil, and Jasper Bunskoek, "Zorgen over Toename Spookwoningen: Vaak Wietplantage, Drugslab of Bordeel."

for unregistered residents to be discursively grouped with drug and fraud-related criminal groups. In the case of unregistered immigrants, this construction exposes them to a discursive emphasis on the perceived "illegality" of their residence in the Netherlands.

The ghost resident is – as ghosts tend to be – elusive. Ghost residents are not themselves defined, either sociotechnically or discursively; they are hinted at, existing in the margins, but lacking a real definition. While unregistered individuals exist physically, the ghost resident exists only within the digital space of the Dutch governmental data assemblage. This categorization, however, comes back to haunt these residents through a negative discourse that paints ghost residents as potentially harmful to civil society. These ghosts are digitally and discursively constructed through an ontology that allows them the space to exist, to be part of public discourse, but which removes accountability from the Zicht op Ondermijning platform. After all, if individuals are not defined, if they are just out of reach, then the lines around the dashboard's accountability in targeting individuals through their data become blurred.

2.c - Crimmigration

The term *crimmigration* is used in academia to critically consider "the convergence of criminal law and immigration law,"[96] providing a broader definition that explores the intersection of migration and crime control. Woude, Leun, and Nijland argue that "legislative changes do not evolve in a vacuum and cannot be studied isolated from the social and political context in which they exist," so these practices transcend the purely legal realm.[97] Crimmigration can then be understood as a complex network of systems that work together in dealing with immigration and criminal issues jointly – it is itself an assemblage, in which on one hand there is the discursive

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[96] Brouwer, van der Woude, and van der Leun, 101.
[97] Maartje A. H. Woude, Joanne P. Leun, and Jo-Anne A. Nijland, "Crimmigration in the Netherlands," *Law & Social Inquiry* 39, no. 3 (2014): 562, https://doi.org/10.1111/lsi.12078.

construction of the ghost resident and the grouping of unregistered migrants with criminal

groups, and on the other hand there are the structural practices of governmentality that

criminalize immigrants.

The notion of immigration is particularly important to pay attention to because it seems to

be especially large numbers of immigrant,[98] as well as international student[99] populations, who

are failing to register. As an Investico article points out, "migrant workers often have no idea of

this obligation [to register], many municipalities hardly check it, or even actively hinder

registration."[100] Many migrant workers first register with the RNI (Registratie Niet-Ingezetenen,

the database for a stay of fewer than four months), as this process is a much more quick and

efficient way to get a BSN (*Burgerservicenummer*, the Dutch social insurance number) and

which does not require a residential address.[101] If an individual stays longer than four months,

they must then register with the municipality, but this rule is often "massively escaped" – as

such, out of "2.3 million migrants who have a social security number (BSN), the Netherlands has

no idea where they are."[102] Further, the homeless population of the Netherlands, over half of

which has a migration background,[103] also faces challenges with registration, being exposed to a

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[98] "More than half migrant workers not registered as living in Netherlands," *NL Times,* 4 May 2021, https://nltimes.nl/2021/05/04/half-migrant-workers-registered-living-netherlands;
Sylvana van den Braak, Irene van der Linde, and Emiel Woutersen, "Bijna 250 duizend arbeidsmigranten onvindbaar voor overheid," *Investico*, 3 May 2021,
https://www.platform-investico.nl/onderzoeken/bijna-250-duizend-arbeidsmigranten-onvindbaar-voor-overheid;
"Thousands of foreign workers are not registered as living in NL: Investico," *Dutch News,* 4 May 2021,
https://www.dutchnews.nl/2021/05/thousands-of-foreign-workers-are-not-registered-as-living-in-nl-investico/.
[99] Wendy Degens, "Municipality has no idea how many students have or have not registered," *Observant,* 25 September 2019,
https://www.observantonline.nl/english/Home/Articles/id/42789/municipality-has-no-idea-how-many-students-have-or-have-not-registered;
Yelena Kilina, "No permanent address: no Dutch bank account or job for internationals," *UKrant*, 1 September 2021, https://ukrant.nl/no-permanent-address-means-no-dutch-bank-account-or-job-for-internationals/?lang=en.
[100] Braak, Linde, and Woutersen.
[101] Petra Vissers, "Van 2,3 Miljoen Migranten Met Bsn Weet Nederland Niet Waar Ze Zijn.," *Trouw*, February 26, 2020,
https://www.trouw.nl/binnenland/van-2-3-miljoen-migranten-met-bsn-weet-nederland-niet-waar-ze-zijn~b457e1da/.
[102] Vissers.
[103] "Homelessness more than doubled since 2009," *Centraal Bureau voor de Statistiek*, 23 August 2019, https://www.cbs.nl/en-gb/news/2019/34/homelessness-more-than-doubled-since-2009.

conditional logic of registration which does not allow them to receive any welfare benefits if they are not registered, but still requires a residential address in order to register.[104] Because of the elusive nature of the ghost resident, it is difficult to obtain the exact numbers of immigrants within the unregistered population, but through these findings – as well as their recurring presence within public discourse – the link between immigration and lack of registration becomes undeniable.

Within immigration literature, a lot of attention is placed to the framing of unauthorized immigrants as "illegal" – a discursive choice which emphasizes the idea of illegality and "defines immigrants as criminals," but which is inaccurate in that "although a migratory act may be illegal, people themselves cannot be illegal."[105] This reinforces popular narratives of "the unknown and undocumented [as] not just unwanted, but dangerous"[106] – an anti-immigration discourse that is only emphasized with the pejorative connotations that unregistered immigrants evoke when they are seen as ghosts in the dashboard. These perspectives on the "unwanted" immigrant are reflected in policy as well. Since 2001, the Dutch government has used a sliding-scale which "provides Immigration and Naturalization Service (INS) with powers to deport legally residing migrants who are seen to be endangering public order, in most cases because of (prior) convictions."[107] The discursive practices that highlight the perceived "illegality" of the unregistered resident help to legitimize and justify discriminatory practices that operate sociotechnically in the Dutch crimmigration assemblage.

Within this assemblage, then, an interesting thing is happening: with the alleged objective of fighting undermining crime, unregistered residents are discursively grouped with dangerous

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[104] Robben, Pierre, and Hermans, 567.
[105] Brouwer, van der Woude, and van der Leun, 103.
[106] Woude, Leun, and Nijland, 560.
[107] Woude, Leun, and Nijland, 570.

criminals, themselves becoming part of the perceived endangerment of public order. These groups are constructed under an ontology related to criminality, and thus face legal consequences through their existence as ghosts in the data assemblage. As such, a dual haunting is taking place: residential buildings where no one is registered are being haunted by the unregistered populations living within them, and these individuals are in turn being haunted by a system of crimmigration that puts them at risk of being deported or suffering other consequences – perhaps not explicitly seeking to do so but always keeping it a possibility.

2.d - Cultural denial

In its alleged efforts to avoid ethnic profiling and the targeting of particular individuals, Zicht op Ondermijning sets several safeguards in place. All data are anonymized and certain minimums for groups are set so that no one particular individual can be identified; further, a disclaimer on the website points to the fact that analytical results "are in principle not broken down by migration background."[108]

Migration background, which is "related to the country in which both of a person's parents were born, regardless of the country in which the person was born,"[109] has been used for other datafied government projects in the Netherlands in the past, with arguably disastrous results. The *toeslagenaffaire* (or Benefits Affair) was one such example, in which several families were targeted by a governmental algorithm and were accused of fraud through the application for child benefits, resulting in large debts for these families. The affair has been discussed as an example of racial profiling through algorithmic systems, creating a

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[108] "Zicht Op Ondermijnin," https://www.zichtopondermijning.nl/.
[109] Ibid.

"discriminatory loop" which reinforces the link between race-ethnicity and crime.[110] Other examples like the *Leefbarometer* (or *Livability Barometer*) have also operationalized this racializing of groups with negative consequences.[111] Considering this context, the Zicht op Ondermijning project leaders may be attempting to avoid such a thing to happen again, but simply omitting migration background may not be enough to protect the groups that are most affected.

First, a data assemblage need not be explicitly discriminatory through its *inclusions*. Different types of discriminatory data practices can also be punitive through modes of *exclusion*. Broeders identifies a dual practice: exclusion *through*, and exclusion *from*, registration and documentation.[112] The former can be understood as created sociotechnically through different categorizations, such as that of the "ghost," or through others like the "undesirable alien" which creates barriers for individuals whose continued residence in the Netherlands is then regarded as a crime against the state and can be punished with imprisonment.[113] Systems of datafied governmentality allow for the construction of the *digital migrant*, an immigrant who is "increasingly processed as data points in databases for asylum or visa verification purposes," processes through which migrants' being and existence are fundamentally co-constituted,[114] and which enable processes like "digital deportability" which make deportation at any given moment a constant threat within the slick space of the data flow.[115] By becoming part of the data

[110] "Dutch Childcare Benefit Scandal an Urgent Wake-up Call to Ban Racist Algorithms," *Amnesty International*, October 25, 2021,
https://www.amnesty.org/en/latest/news/2021/10/xenophobic-machines-dutch-child-benefit-scandal/.
[111] Gerwin van Schie, *The Datafication of Race-Ethnicity: An Investigation Inot Technologically Mediated Racialization in Dutch Governmental Data Systems and Infrastructures*, 2022, 116.
[112] Dennis Broeders, "A European 'Border' Surveillance System under Construction," in *Migration and the New Technological Borders of Europe*, Migration, Minorities and Citizenship, 2011, 59,
http://dx.doi.org/10.1057/9780230299382_3.
[113] Woude, Leun, and Nijland, 567.
[114] Leurs and Shepherd, 6.
[115] Kuster and Tsianos.

assemblage, individuals can thus be categorized in specific ways that exclude them from services or benefits. The second form of exclusion can be understood, for example, as the structural exclusion *from* governmental databases, such as the inability to register into the BRP without a residential address, which has the double effect of restraining the excluded person's access to social welfare, as well as leading to their under-researching because of their invisible status.[116] A system that affects certain populations more than others, or which can lead to increased consequences for certain groups, can still be considered discriminatory, even if it does not explicitly consider migration background.

Secondly, the removal of migration background may not protect ghost residents from the negative effects of their discursive construction, precisely because migration background arises from registration. Indeed, migration background is another part of the categorization process in the CBS,[117] but ghosts are created when registration *does not happen*. Therefore, considering or not considering migration background is irrelevant specifically for the ghost resident subcategory of the dashboard. While the creators of Zicht op Ondermijning may be attempting to distance their dashboard from issues of racialization with the removal of migration background, this act is not enough.

Denial of marginalized groups can manifest in many different forms. Stanley Cohen explores the idea of "a culture of denial," which later evolves to give way to the concept of cultural denial.[118] Cohen points to various conditions linked to practices of denial, one of which is the dehumanization of a subject: "when the qualities of being human are deprived from the other, then the usual principles of morality do not apply," excluding the subject from moral

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[116] Robben, Pierre, and Hermans, 566.

[117] Schie, *The Datafication of Race-Ethnicity: An Investigation into Technologically Mediated Racialization in Dutch Governmental Data Systems and Infrastructures*, 114.

[118] Cohen, *States of Denial*.

consideration through their discursive construction as non-human.[119] The construction of

unregistered individuals as ghosts removes some aspect of their humanity: not only are they

discursively framed as a problem that requires getting rid of, they are also constructed as

potentially dangerous non-physical entities, making it easier to look away from the injustices

done to them.

Invisibility

3.a - Invisibility in the BRP data assemblage

The ghost resident is created in the Zicht op Ondermijning dashboard, defined by the

loose categories that do not explicitly define it but which allow for its existence. However, the

existence of the ghost resident is not enabled merely by the anticipatory governance platform

itself. Instead, these ghosts emerge from invisibilities in the data which go back much further. In

order to understand this phenomenon, it is important to understand the sources from which Zicht

op Ondermijning gets its data.

Administrative vacancy – necessary for the construction of ghost habitation – is defined

primarily through the National Vacancy Monitor (*Landelijke monitor leegstand* in Dutch) which

itself uses data from different databases: the Basic Registers for Addresses and Buildings (BAG),

the Valuation of Real Estate (WOZ), the Basic Registration of Persons (BRP) and the Trade

Register (HR).[120] The first two databases consider real estate ownership, while the latter two

consider occupation based on registration to these databases: the Trade Register (HR) points to

businesses that occupy buildings, while the BRP points to individuals who occupy residential

homes. It is important to note that "almost all of the Netherlands' official demographic statistics

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[119] Stanley Cohen, "Human Rights and Crimes of the State: The Culture of Denial," *Australian and New Zealand Journal of Criminology* 26, no. 2 (1993): 110.
[120] "Leegstand." Zicht op Ondermijning.

are fully based on population register data."[121] As such, the data used by Zicht op Ondermijning to determine administrative vacancy ultimately come either directly or indirectly from BRP data. The central population register, by definition, is supposed to be a totalizing database that takes all residents of a country into consideration. As Robben et al. argue, "it is often considered, if not simply assumed, that all citizens are registered and thus covered by these civil registration systems."[122] This belief is then further reinforced by the narrative of the objectivity of data which is used to legitimize the dashboard. Ghosts emerge from their discursive construction just as much as they do from the structures that render them visible. As such, the first step that an individual must take to become (in)visible in the BRP data assemblage – registration – requires critical consideration.

3.b - A flawed registration logic

From the very first step of registration, some invisibility is already created. Depending on the length of one's stay in the Netherlands, there are two types of registration with the municipality: either registering as a resident in the BRP (for a stay of four months or longer), or registering as a non-resident in the RNI.[123] In order to register as a resident, the municipality asks for a passport; a birth, marriage, or divorce certificate; and "proof of occupancy: a rental/ tenancy agreement, home purchase deed or a completed form for temporary registration."[124] Temporary registration is only applicable if an individual is using the postal address of their employer, living at a residence rented by their employer, or living at someone else's address (which requires a signed declaration form from the primary occupant of the dwelling, who must

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[121] Prins, 17.
[122] Robben, Pierre, and Hermans, 566-567.
[123] "Register in Utrecht Region | The Netherlands," Utrecht Region, accessed April 21, 2024, https://welcome.utrechtregion.com/en/iwcur/formalities/registration#13350-temporary-registration.
[124] Ibid.

themself be registered).[125] There is also an alternative for individuals who wish to register as residents but who do not have a fixed home address. This is done for individuals in specific situations, such as being "in a care institution, women's refuge, a vessel or vehicle, or because [they] are in prison."[126]

These alternatives, however, remain limited. The correspondence address, for example, must be "the address of a family member or someone [the individual knows] where correspondence from official bodies can be sent," and which is followed by an investigation by the municipality to ensure the individual really has no fixed address.[127] Further, "the municipality will reach an agreement with you about how long you can be registered under a correspondence address,"[128] ultimately giving the final word to the government officials, who get to decide whether a person can or cannot register. Thus, if someone is living in an address where they cannot register (for example, subletting a room without a contract, or living at a residence where the owner does not allow for registration), they may have recourse to alternative ways of registering, but these are limited and specific to certain situations. Further, the municipality has the right to reject an application, or allow it only for a short amount of time. Individuals who do not have a network in the country, thus having no one to vouch for them or welcome them into their home, may have a harder time registering if they live at an address that cannot be registered for differing reasons, since a correspondence address will not be an option.

Because of these possible obstacles to registration, it is easy to see how invisibilities can emerge. As Poulain, Herm, and Depledge argue in their study of central population registers,

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[125] Ibid.
[126] "Can I Get a Correspondence Address If I Don't Have a Fixed Home Address?" *Government of the Netherlands* (Ministerie van Algemene Zaken, April 12, 2016), https://www.government.nl/topics/municipalities/question-and-answer/topics/municipalities/question-and-answer/correspondence-address.
[127] Ibid.
[128] Ibid.

another factor that determines the reliability of these databases is the fact that they are self-reported.[129] In other words, while financial penalties may be set in place to deter people from not registering or registering fraudulently, it is ultimately up to the individual to go to the municipality and register, or risk being fined. According to Poulain et al., "most of the discrepancies between actual and administrative status are due to negligence or delay," as well as for reasons of financial gain.[130]

Because registration is not automatic, and therefore up to the individual, as well as for situations in which an individual could benefit from fraud, some individuals may choose not to register. This could be the case of people attempting to get welfare benefits – which are intimately linked to civil registration[131] – or as an act of resistance in the case of squatters. Nevertheless, many people may simply be unable to register if they are being taken advantage of by the homeowner, if they are subletting without a contract, or if they are homeless. Within the data assemblage, however, all of these situations are blended into one. By having a registrable residential address as an obstacle to registration, individuals without access to a registrable address become *excluded from* the central population register, and as such all unregistered individuals take part in a haunting – as they haunt the BRP data assemblage, they become haunted themselves by the consequences their construction as a ghost by the categorizations created by the City Deal partners.

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[129] Poulain, Herm, and Depledge, 195.
[130] Poulain, Herm, and Depledge, 196.
[131] Robben, Pierre, and Hermans, 576.

Conclusions

In this paper, through an infrastructural inversion of the Dutch BRP data assemblage, with a specific focus on the Zicht op Ondermijning dashboard, I have shown different ways in which the *ghost resident* is discursively and sociotechnically constructed. Not a physical entity in itself, the ghost resident is a discursive creation, existing through loose categories in a datafied system that creates ontologies and epistemologies about these residents. By carrying out a hauntology in this paper, I have explored the ways that the Dutch BRP data assemblage is haunted by the ghost resident – both a by-product and an actor within the anticipatory governance infrastructure – as well as being haunted by a sociopolitical context from which discriminatory data assemblages emerge. By discursively grouping unregistered residents with other types of criminality, Zicht op Ondermijning reinforces narratives of the "unwanted immigrant" for unregistered migrants, as well as highlighting the connotations of danger that are often associated with these ghost residents. This harmful discourse surrounding the ghost resident arises within the Zicht op Ondermijning dashboard as a form of cultural denial, and it is perpetrated in popular media in the growing discourse of ghost habitations as a problem that must be dealt with, in this case through technological solutions. I call attention to the discriminatory nature that such categorizations can have in a context of datafied governmentality, and I call for further critical consideration of the different types of invisible residents who are tied into one big category.

Robben et al. discuss this registration issue in Belgium, which has an almost identical registration process to the Netherlands. In considering alternatives, they discuss the option of *automatic registration*, which means not requiring a residential address to register and instead making registration the first step so that those living in unregistrable situations can still access

welfare and other social services related to registration.[132] The philosophy behind automatic

registration follows harm reduction approaches such as Housing First, a system to eradicate

homelessness in which homeless individuals are first and foremost provided with a home, and

later helped through other issues (such as drug problems).[133] This emerges as an alternative to

other housing approaches which have requirements for individuals such as being sober before

they can be housed, providing obstacles for many with addiction and mental health problems.

Alternatives like automatic registration could be useful in creating a registration system for the

Dutch governmental assemblage that properly considers the existing barriers to housing and

residence-based registration, facilitating the rendering visible of unregistered groups within the

data assemblage. This can lead to a better understanding of these groups from an administrative

perspective as well as preventing more individuals from suffering from the harmful ontologies

and epistemologies that are created through the discursive construction of the ghost resident.

The ghost resident does not exist naturally in the world. Instead, it is created, shaped, and

perpetrated through discursive practices and datafied infrastructures; it emerges from

technocratic-solutionist anticipatory governance models, from incomplete existing data used for

tackling both policing and immigration issues at once. Only by closely analysing the systems that

create these invisibilities – the discourse and data structures used to reinforce the ontologies and

epistemologies that construct the ghost resident – can it be understood which groups are most

affected by such systems of constructed data. It is important that the data selected and the

categories created justly reflect the realities of the people counted, as well as holding

accountability for those who do the counting. Otherwise, the BRP data assemblage will continue

to be haunted by ghosts – administrative specters and constructed criminals.

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[132] Robben, Pierre, and Hermans, 577.
[133] Robben, Pierre, and Hermans, 578.

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