LUISS T

Degree Program in Politics: Philosophy and Economics

Course of International Relations

The Deployment of AI in Border Control: Exacerbating Issues of Oppression and Surveillance

Prof. Raffaele Marchetti	101142 Sara Boggi
SUPERVISOR	CANDIDATE
Prof. Carolina Polito	
ASSISTANT SUPERVISOR	

Academic Year 2023/2024

A mamma, papà, Eva e Ale <3

Abstract

The integration of Artificial Intelligence (AI) in state surveillance and border control has revolutionized these domains, bringing unprecedented capabilities and raising significant ethical and human rights concerns. This thesis delves into the multifaceted implications of AI technologies, focusing on the Israeli "Red Wolf" system deployed in the West Bank city of Hebron. This sophisticated AI-driven border control mechanism utilizes facial recognition, behavior analysis, and predictive algorithms to monitor and regulate Palestinian movement at checkpoints. The study investigates how such technologies exacerbate power imbalances, perpetuating systemic repression and impacting the daily lives and freedoms of Palestinian residents. By analyzing media portrayals, NGO reports, and personal testimonies, the research provides a comprehensive view of the ethical dilemmas and socio-political ramifications of AI deployment in conflict zones. Despite challenges in data access and potential biases in sources, the study aims to offer a nuanced understanding of the "Red Wolf" system's role in Israeli border control practices.

This thesis seeks to critically assess the impact of AI on international relations and state surveillance practices. By highlighting the intricate balance between security needs and individual freedoms, the study underscores the urgent necessity for public discourse on the ethical use of AI. The research aims to contribute to a deeper understanding of how AI technologies are reshaping power dynamics and governance structures, particularly in politically sensitive and conflict-prone regions. It calls for greater awareness and critical examination of AI's role in surveillance to ensure that technological advancements do not come at the expense of fundamental human rights and ethical standards.

Table of Contents

Abstract	t	3
Table of	Contents	4
Introduc	ction	5
1. Int	roduction to AI and Its Ethical Implications in State Surveillance and Border C	Control 7
1.1	Introduction	7
1.2	Defining Artificial Intelligence	8
1.3	Artificial Intelligence as a Tool for Repression	11
1.4	The Evolution of State Surveillance and Border Control Mechanisms	13
1.5	The Role of AI in State Surveillance	14
1.5.1	Biometric Technologies	15
1.6	Ethical Frameworks and Human Rights Perspectives on AI Deployment	17
2. Th	eoretical Framework and Methodological Approach	19
2.1	Introduction	19
2.1.1	Theoretical Framework	20
2.1.2	Application of the Theoretical Framework	22
2.2	Methodology and Scope	24
2.2.1	Selection of Data Sources	24
2.2.2	Sampling Techniques	26
2.3	Analytical Approach	27
2.4	Scope of Analysis and Data Availability	28
3. Th	e Red Wolf System: Implementation, Context, and Impact	30
3.1	Introduction	30
3.2	Overview of the Red Wolf System	31
3.3	Historical and Political Context	33
3.3.1	The Role of Surveillance in the Conflict	35
3.4	Implementation of the Red Wolf System	38
3.4.1	Mechanics of the Red Wolf System	39
3.5	Impact on Palestinian Communities	41
3.5.1	Power Dynamics and Ethical Concerns	42
Conclusi	ion	45
Deferen	000	47

Introduction

In a world where technology advances at an unprecedented pace, the boundaries of surveillance and control are being redrawn, with Artificial Intelligence (AI) at the forefront of this transformation. Imagine a system so sophisticated that it can identify individuals, predict their actions, and influence their movements—all in real-time. This is not a scene from a dystopian novel but the reality in places like Hebron, a city at the heart of the Israeli-Palestinian conflict. Here, the "Red Wolf" AI system operates silently yet pervasively, its digital eyes and algorithms tirelessly monitoring every passerby.

The "Red Wolf" system represents a new era in border control, where AI technology merges with state power to create an environment of constant surveillance. Its deployment in Hebron's volatile landscape raises critical questions about the balance between security and freedom. How does such a system affect the daily lives of those under its watchful gaze? What are the broader implications for human rights and ethical governance in conflict zones?

This thesis embarks on a journey to unravel these questions, offering a deep dive into the complex interplay between AI, state power, and individual liberties. The focus is on Hebron, a microcosm of broader global trends where technology and geopolitics intersect with profound consequences. By examining the "Red Wolf" system, we seek to understand how AI-driven surveillance is reshaping the social and political fabric of regions embroiled in conflict.

Hebron, a city steeped in history and strife, provides a poignant backdrop for this exploration. The city's checkpoints, where the "Red Wolf" system is deployed, are not merely physical barriers but symbols of the pervasive control exerted over Palestinian residents. Here, every movement is tracked, every gesture analyzed, creating a digital panopticon that extends the reach of state surveillance far beyond traditional means.

The implications of this technology are vast and multifaceted. On one hand, AI offers unparalleled capabilities in enhancing security and operational efficiency. On the other, it poses significant risks to privacy, civil liberties, and human dignity. This duality lies at the heart of our investigation, prompting a critical assessment of AI's role in modern governance and conflict management.

The first chapter establishes the foundation for the thesis by reviewing existing literature on AI in surveillance and border control. It begins with defining AI and its potential as a tool for repression. The evolution of state surveillance and border control mechanisms is traced, highlighting the role of AI in these practices. Special attention is given to biometric technologies and their integration into surveillance systems. The chapter concludes with an exploration of

ethical frameworks and human rights perspectives on AI deployment.

As for the second chapter, there will be an outline of the theoretical concepts that guide our analysis, including the panopticon, biopolitics, and the ethical implications of AI.

We discuss how these theories apply to the "Red Wolf" system and the broader context of AI in state surveillance. The methodology section details the research methods employed, including data source selection, sampling techniques, and the analytical approach. This framework sets the stage for a comprehensive examination of the system's impact.

The third, and last core chapter, provides a detailed analysis of the "Red Wolf" system, its implementation, and its context. We start with an overview of the system, followed by a historical and political context of Hebron and the Israeli-Palestinian conflict. The role of surveillance in this conflict is examined, along with the mechanics of the "Red Wolf" system. The chapter investigates the system's impact on Palestinian communities, focusing on power dynamics and ethical concerns.

Through a meticulous analysis of media reports, NGO documentation, and personal testimonies, this thesis paints a comprehensive picture of the ethical, social, and political dimensions of AI deployment in Hebron. It challenges us to think about the future of surveillance in a world where technology continues to evolve rapidly, often outpacing the frameworks designed to regulate it. As we delve into the workings of the "Red Wolf" system, we confront the broader implications for international relations, human rights, and the very nature of state power. This study is not just about technology but about the human experience in an age of digital surveillance. It calls for a nuanced understanding of how AI is transforming the landscape of conflict and control, urging us to consider the ethical imperatives that must guide its use.

In this exploration, Hebron stands as a testament to the profound impact of AI on society, highlighting the urgent need for transparency, accountability, and ethical guidelines in the deployment of such technologies. The journey begins here, at the intersection of technology and humanity, where the future of surveillance is being written in algorithms and data streams.

1. Introduction to AI and Its Ethical Implications in State Surveillance and Border Control

1.1 Introduction

The technology breakthrough is going on fast, and making use of artificial intelligence in every stream of life is in its ever best form. International relationships and surveillance have been the most crucial fields where AI has gained fame, and a horde of ethical and moral concerns relate to it. This paper explains many consequences of using AI in this area, but mainly on the role of AI in surveillance of populations and controlling the defying voices.

Such uses have become most important as nations traverse complex geopolitical landscapes and deal with security challenges in maintaining control and safeguarding national interests. Surveillance has taken a new course from the traditional methods used. These AI-based systems take a lead because of their capability in surpassing all others in data collection and the consequent analysis and interpretation. This technological capability raises pertinent questions on selected imperatives of security and individual freedoms that need to be balanced.

As AI moves into international relations, this will become a ground-shifting alteration of diplomatic practices and global governance structures. It implies that AI tools shall turn into enablers of said processes of information in support of these functions, which may enhance efficiency and effectiveness for diplomacy. They also raise some challenges: transparency and accountability in the decision-making processes, on the one hand, and the possibility of algorithmic bias harming policy outputs, on the other.

AI applications with regard to facial recognition systems, social media monitoring algorithms, or predictive policing models have significantly reshaped surveillance practices. In the domain of surveillance, AI allows for levels of data aggregation and analyses where authorities can monitor activities at unique levels. However, this development has scores of people arguing that finally, there will be better safety and security in public, but most of the critics still argue that this will bring on issues related to the breach of privacy, civil liberties, and potential abuse of power.

More troubling uses are those of AI to muffle voices of dissent and political opposition. Advanced monitoring and predictive algorithms allow governments to single out perceived threats to their authority and scratch them, often at the cost of such basic human rights as freedom of speech—one major implication of AI-driven surveillance for democracy, governance, and social cohesion.

By this, the current dissertation will elaborate in detail the role of AI on the global arena in terms of relations and surveillance, with a special focus on the nuances of population monitoring and control within that domain. The problematics increase as this research tries to unearth the complex underlying dynamics by reviewing existing literature, analyzing relevant case studies such as the Israelian "Red Wolf" case, and making a critical appraisal of ethical-legal considerations. The purpose is to unpack the nuances of AI deployment in these contexts and increase a deeper understanding of the challenges and opportunities that such technologies might bring to global governance and security. It will finally inform policy and academic discussions in a way that may propagate great awareness of the ethical, political, and societal implications that arise from an AI-it-driven surveillance in the contemporary world. Therefore, it is of paramount importance that as we transverse these critical times in our experience in this fast, interdependent, and technologically driven global landscape, we critically recognize the impacts that AI brings to international relations and surveillance, ways that will uphold individual liberties and collective security.

1.2 Defining Artificial Intelligence

The concept of artificial intelligence (AI) has evolved over the years, with various definitions reflecting its multifaceted nature. Initially conceptualized as machines exhibiting human intelligence, AI has become an integral part of our daily lives, propelled by advancements in technology and the rise of big data. The Turing test, proposed in the 1950s, defined AI as the ability of machines to communicate with humans without revealing their non-human identity.

Pioneers like Marvin Minsky emphasized AI's role in enabling machines to perform tasks that traditionally required human intelligence¹. The first wave of AI, also called symbolic AI, follows a line of thought according to which, for artificial intelligence to exhibit a certain skill or behavior, it needs to understand its underlying mechanisms; symbolic AI

¹ Minsky, M. 1961

exploits primitive symbols and concepts, rather than numerical data, associating them to corresponding physical entities.

As expected, these mechanisms turned out to be too expensive and not efficient enough, so a solution was found in the subsequent school of AI, the so-called "statistical AI". As the name suggests, this method exploits numerical data and statistical correlations found in large masses of data; and it does so in the cheapest way possible through different shortcuts such as the research for correlation rather than causation, the usage of large amounts of data already created for different purposes, and the exploitation of proxies and implicit feedback to bypass the need for explicit user feedback².

Lastly, it is important to underline how deeply data-driven AI is intertwined with the development of the World Wide Web (WWW), as it is within the context of WWW that AI ventured into the wild, finding its place within society and, consequently, becoming part of our daily lives.

Despite diverse descriptions, the core of AI revolves around theories, methods, technologies, and applications that simulate, extend, and expand human intelligence.

In recent times, AI has made a profound impact on human life, transitioning from theoretical concepts to tangible applications. The advent of machine learning (ML), a subset of AI, has allowed machines to learn and improve their analyses through computational algorithms, especially in the era of big data. Deep neural networks, a more complex version of ML, have given rise to "deep learning," allowing machines to develop models without explicit programming.

The historical perspective on AI dates back to the 1950s, with a focus on machine learning and various subfields such as computer vision, speech recognition, and robotics. The integration of AI in communication technology has led to the emergence of human-AI interaction (HAII) and AI-mediated communication (AIMC). AI's role as an intelligent agent communicator has expanded from one-to-one encounters to one-to-many, impacting socio-emotional interactions and autonomy.

AI's functionality now extends to resolving issues such as hate speech and misinformation online, sentiment analysis, and speech recognition. Communicative bots and AI companions are becoming popular in various domains, including e-commerce. However, the widespread adoption of AI raises concerns about potential drawbacks and ethical

-

² Cristianini, N. (2021)

considerations at individual and organizational levels.

Today, the field of artificial intelligence (AI) is characterized by two fundamental and interconnected criteria: *intentionality* and *adaptability*³.

AI experts emphasize intentionality as the capacity for AI algorithms to utilize sensors, digital data, and remote inputs, synthesizing information from diverse sources to analyze data in real-time and act based on insights gained. This design often incorporates Machine Learning (ML) and data analytics, enabling intelligent decision-making. ML processes data, identifies trends, and distinguishes AI from conventional programming by providing machines with the ability to learn through trial-and-error, resembling human cognitive processes, particularly in the realm of deep learning (DL) or deep neural networks. Through DL, AI learns from its experiences, continuously refining its capabilities.

Adaptability, the second criterion, refers to AI's ability to learn, change behavior, and make real-time decisions while incorporating new information. The most effective AIs adjust their behavior as circumstances evolve, dealing with changes in financial situations, road conditions, environmental factors, or military scenarios. In the real world, this adaptability is evident in various applications, such as autonomous vehicles sharing information about traffic congestion, thereby navigating efficiently without human intervention. AI serves as the foundation of the Internet of Things (IoT), an emerging technology utilizing sensors, cameras, and algorithms. This is exemplified in smart factories, where production can autonomously operate globally through a central node, or in robotics, where robots autonomously access data, tapping into the experiences of other distributed AIs, and take on new functions not initially programmed, facilitated by DL.

However, despite these advancements, AI currently excels in constrained environments, facing challenges in open worlds with poorly defined problems and abstractions. In constrained environments, like simulated scenarios or situations where prior data accurately reflects future challenges, AI performs well. The real world, in contrast, is open, presenting constant new challenges that AI must adapt to. This limitation is acknowledged by researchers like Kumar and Batarseh⁴, who highlight AI's struggle with open, dynamic environments.

³ Ndzendze, B., et al (2023)

⁴ Kumar and Batarseh (2020)

The roots of automata theory, a precursor to modern AI, trace back to World War II, particularly with the "codebreakers" decrypting German trigrams from the Enigma machine. The complexity of decoding without knowing the rotor's position led to the integration of automata theory in computing. This theory paved the way for the development of logical machines, performing basic operations of information processing akin to those carried out by humans, such as generating, codifying, storing, and utilizing information⁵.

In essence, the journey of AI from its theoretical inception to its current practical applications has been marked by continuous innovation, with researchers and developers striving to enhance both its intentionality and adaptability to meet the evolving challenges of the real world.

In summary, the evolution of AI from theoretical concepts to practical applications has transformed how intelligent entities perform tasks, communicate, and interact with humans. As AI continues to advance, it brings both benefits and challenges, necessitating ongoing exploration and evaluation of its impact on society.

1.3 Artificial Intelligence as a Tool for Repression

One of the first things to be taken into consideration when we talk about AI and digital technologies is the profound impact that they have on the dynamics of global politics, particularly within the context of authoritarian regimes. Consequently, it is essential to delve into the various facets of how AI is being leveraged by governments to maintain control, suppress dissent, and navigate the complexities of contemporary authoritarian governance.

One of the central themes across the discussions is the transformative role of AI in enabling repressive regimes to exert unprecedented levels of control over their populations. By automating surveillance, monitoring, and even decision-making processes, AI empowers authoritarian leaders to effectively track dissent, suppress opposition movements, and ensure regime stability.⁶ This digital repression capability allows regimes to operate with greater efficiency, precision, and scalability, while also reducing the reliance on human operatives and minimizing the risks associated with

_

⁵ Andreu-Perez et al. (2018)

⁶ Feldstein, S. (2019)

traditional forms of repression.⁷

Furthermore, the global trend of AI adoption in both authoritarian and democratic contexts must be taken into account. While authoritarian regimes are at the forefront of deploying AI for surveillance and control purposes, democratic governments are also investing heavily in AI technologies for various applications, including border security, counterterrorism, and law enforcement.⁸ This widespread adoption underscores the transformative potential of AI across diverse political systems and underscores the need for robust regulatory frameworks to govern its use.⁹

However, alongside the opportunities presented by AI, we also have significant challenges and ethical dilemmas. The use of AI surveillance technology raises concerns about privacy, human rights violations, and the potential for abuse by repressive states.¹⁰ Moreover, the indiscriminate use of digital repression tactics can undermine political legitimacy, fuel discontent, and escalate the risk of civil unrest, posing long-term stability challenges for authoritarian regimes.¹¹

A concerning fact is also the evolving nature of authoritarian governance in the digital age. Traditional forms of repression, such as censorship and surveillance, are being augmented and enhanced by AI-powered technologies, opening up new avenues for control and manipulation. The increasing sophistication of AI surveillance systems, coupled with the vast amounts of data generated in the digital realm, presents both opportunities and risks for authoritarian regimes seeking to maintain power and control in an increasingly interconnected world.¹²

In conclusion, while AI presents unprecedented opportunities for control and surveillance, it also raises profound ethical and practical challenges that require careful consideration and regulation. As AI continues to reshape the landscape of global politics, policymakers, activists, and scholars must engage in critical dialogue and action to ensure that these technologies are used responsibly and ethically to promote human rights, democracy, and social justice on the global stage.

⁷ Feldstein, S. (2021)

⁸ Frantz, E. et al (2020)

⁹ Manheim, K. Et al (2019)

¹⁰ Feldstein, S. (2019)

¹¹ Frantz, E. et al (2020)

¹² Feldstein, S. (2021)

1.4 The Evolution of State Surveillance and Border Control Mechanisms

Borders have historically served as physical demarcations of territorial sovereignty, delineating the boundaries within which states assert authority and control. However, in an era characterized by unprecedented levels of global interconnectedness and mobility, the traditional conception of borders has undergone a profound transformation. Borders are no longer static lines on maps but dynamic, porous zones where the complexities of surveillance intersect with the imperatives of governance and security.

Surveillance practices have become central to the functioning of modern borders, playing a crucial role in regulating the movement of people, goods, and information across national boundaries. From biometric identification systems to advanced scanning technologies, surveillance measures at borders have evolved to encompass a wide array of techniques aimed at monitoring and controlling flows of various kinds.¹³ While ostensibly designed to enhance security and border integrity, these surveillance infrastructures also raise significant ethical and privacy concerns, as they entail intrusive forms of monitoring that can infringe upon individual freedoms and rights.¹⁴

Moreover, the global expansion of surveillance practices, particularly in the context of homeland security, is significant. The post-9/11 era has seen the proliferation of surveillance technologies and the establishment of vast surveillance networks, driven by concerns over terrorism, illegal immigration, and transnational crime. The US model of homeland security, characterized by a heavily financed security-industrial complex, has been exported globally, leading to the adoption of similar surveillance measures in countries around the world. 16

In this globalized surveillance apparatus, borders serve as focal points for exercising surveillance and control over mobilities. However, it is also emphasized the fluid and contingent nature of borders in the context of globalization. Borders are no longer confined to physical spaces but extend into virtual realms, encompassing digital networks and information flows. This blurring of physical and virtual boundaries complicates traditional notions of sovereignty and territoriality, posing new challenges for border

¹³ Adey, P. (2012)

¹⁴ Walsh, J. (2008)

¹⁵ Koslowski, R. (2011)

¹⁶ Walsi, J. (2008)

governance and international relations.¹⁷

Theorizing borders within the framework of globalization requires grappling with the changing nature and significance of borders in a world characterized by networks, mobilities, and fluidity. Social theorists have put forth various approaches, ranging from network theory to the spatiality of politics, in an effort to understand the evolving dynamics of bordering.¹⁸ Borders are seen not as fixed and immutable but as contingent and relational constructs that are shaped by intersecting social, political, and economic forces.

In conclusion, as borders continue to evolve in response to shifting geopolitical realities and technological advancements, it is imperative to consider the ethical, political, and social implications of surveillance practices in shaping the contours of contemporary society. Only through such critical inquiry can we navigate the complexities of border governance and international relations in an increasingly interconnected world.

1.5 The Role of AI in State Surveillance

Artificial Intelligence (AI) is increasingly being integrated into state surveillance and border control, reflecting both technological advancements and evolving security imperatives. AI-powered surveillance systems, in concert with facial recognition, machine learning, and data analytics, enhance the ability of government agencies to monitor and manage populations. Such systems hold out the hope of increased efficiency and effectiveness in the identification and response to putative threats, even as they confer considerable potential for ethical and privacy issues.

For instance, one of the cornerstones of AI applications in state surveillance is facial recognition technology. Governments all around the world are increasingly implementing such systems to monitor public spaces in a bid to ensure public safety and deter crime. The United States is no exception, and despite some controversy over reports of bias and the technology's reliability, federal and local law enforcement agencies have increasingly deployed facial recognition tools in recent years.¹⁹

In border control, AI technologies are making a difference in the way countries manage

_

¹⁷ Rumford, C. (2006)

¹⁸ Adey, P. (2012)

¹⁹ Garvie, C. et al (2016)

migration and national security. Automated border control systems provide e-gates and biometric verification of the traveler in order to reduce time spent at the border crossing and speed up passenger traffic. Such systems are in use across the European Schengen Area in order to ensure free movement of persons along with high security levels.²⁰ The most important point to note is the use of AI algorithms for the analysis of travels and the identification of suspicious behavioral patterns, while suspicion indicators could be fined by intelligence agencies to get prepared in advance regarding potential threats and counter possible sources of insecurity.²¹

Such use of technologies has not been without its challenges, though. For instance, privacy advocates fear such mass surveillance impinges on civil liberties and may eventually lead to authoritarian abuses. In the case of widespread surveillance against targeted people, the citizens' rights violate. Such studies showed that more often than not, face recognition technologies were inaccurate for people of color, women, and other minority groups, hence leading to discrimination and false accusations²².²³

There have also been arguments that the deployment of AI into border control has justified debates on issues of data security and data sovereignty. When collected and stored, biometric data raise questions regarding the use and accesses for such information. Data breach incidents and misuses further underline the importance of stringent regulations on data protection and oversight mechanisms.²⁴

AI can be used to improve surveillance and control of national borders, provided that its use is carefully managed to balance security needs with individual rights. Continuing discussion between policymakers, technologists, and relevant members of civil society is essential to ensure these powerful tools are used in a responsible and ethical manner.

1.5.1 Biometric Technologies

Biometric technologies are vital tools in the AI-led improvements in state surveillance and border control. These technologies determine a person's identity based on distinct physical or behavioral characteristics, making the identification systems very accurate

²² Buolamwini & Gebru (2018)

²⁰ European Commission (2017)

²¹ Van der Ploeg (2005)

²³ Raji & Buolamwini (2019)

²⁴ Mittelstadt et al. (2016).

and effective. Common biometric methods include facial recognition, fingerprinting, iris scans, and voice prints.

Facial recognition is the most widespread biometric system for state surveillance. Under this system, the recognition system identifies a person's facial features, matches data extracted from the features, and compares them to the dataset towards identifying the person. The system uses facial recognition to provide an accurate real-time identification of people. Law enforcement agencies apply facial recognition as a tool of surveillance in public spaces to track and identify criminal suspects, but its wide usage and deployment present different concerns related to the invasion of privacy and abuse. Numerous studies on this identification technology found concerns about racial and gender bias in the algorithm of the facial recognition system, where the rates of errors in the system were high among people of color and women.²⁵

Another common biometric technology is fingerprint scanning, which uses the automated fingerprint identification system (AFIS) to identify travelers and verify their details on various watchlists. This technology is valued for its accuracy and precision, but concerns related to data security and potential abuse remain salient. Indeed, the application of AFIS is widespread in the United States as an integral part of the border security system.²⁶ Iris scanning is another technology used to identify individuals and is used in different biometric security frameworks. This method is less invasive than fingerprint scanning

and can be applied efficiently in all security contexts, including airports and other border security points. Security is enhanced more rapidly due to the speed and effectiveness of the biometric security measures processed in the systems.²⁷

A major highlight of biometric technology is the use of voice to ascertain and verify an individual through the analysis of one's vocal sounds. This technology is used in the enforcement of security and customer service areas to enhance identity verification. Voice recognition systems can enhance security but also raise privacy issues, particularly in the areas of storing voice samples and potential misuse of such samples.²⁸

State surveillance systems and border control increasingly adopt diverse biometric technologies that improve security and system performance. However, such

²⁵ Buolamwini & Gebru (2018)

²⁶ European Commission (2017)

²⁷ Van der Ploeg (2005)

²⁸ Mittelstadt et al. (2016)

improvements pose concerns that are addressed by proper ethical and legal frameworks. The bricks for public trust and individual rights include transparency, fairness, and accountability in the use of biometric systems.

1.6 Ethical Frameworks and Human Rights Perspectives on AI Deployment

Embedding Artificial Intelligence in a human international relations framework must be fraught with robust ethics. An ethical framework elaborates guidelines for AI technologies to be developed and implemented in a manner able to hold fundamental values in the rendition of human dignity, privacy, and equality.²⁹ Such a thing is quintessential for dealing with multifaceted ethical challenges created by AI to prohibit the propagation of biases and to ensure transparency and accountability for such a manner of AI-driven decision-making.

The embedding and exacerbation of the already existing biases by AI systems have consistently remained a significant concern under this framework. The data on which training is taken up to build AI algorithms generally comprise negative biases at their core and, in any case, emanating discrimination, which is suffered most by marginalized groups. This requires unceasing scrutiny of the implementations in AI systems and measures to mitigate the biases resulting in negative outcomes.³⁰ At the inception stage, this will require ethical AI design to include diversity in datasets and interdisciplinary teams to oversee the process of development so as to give voice to varied perspectives in the process.

A transparent framework for AI is a prerequisite. Opacity, in this regard, to the AI algorithms, could hide the decision-making process and raise hurdles in holding the systems responsible for their actions. If transparency is not maintained, one might see disenchantment with AI technology, more so in the course of its application in delicate domains like law enforcement and international diplomacy.³¹ For that, AI systems must be developed with explainability to let the user understand and question their decisions. Ethics and human rights are also of deep concern in the use of AI in military applications, including autonomous weapons systems. All the above show how war could become a more plausible, secure, and predictable event. The delegation of life-and-death decisions

²⁹ Floridi, L., et al (2018)

³⁰ Buolamwini, J., et al (2018)

³¹ Mittelstadt et al. (2016)

to AI algorithms does challenge traditional notions of human agency and accountability in war. There is even an intense moral debate about the permissibility of making AI take the most critical decisions; hence, there is a need for stern international regulations to be put in place to control this part of AI deployment in military contexts.³²

Ethical dimensions in the development of AI also touch on issues of equity and access. It is essential to ensure that all nations, irrespective of their economic status, have access to AI technologies. It is critical in preventing a digital divide. This is to ensure that the inequality gaps are not widened but rather, a society that shares in AI will see overall benefits accruing to humanity as an entirety.³³ More important in achieving this is international cooperation and creating the needed regulatory frameworks, one of which is the calls that the United Nations is working on regarding guidelines for the ethical use of AI.³⁴

In matters that relate to border security and cyber diplomacy, some other ethical considerations would touch on how AI systems can breach human rights. Automated border decision-making may lead to profiling on the basis of race, ethnicity, or religion, and this raises concerns related to the inequalities and losses of individual dignity it would create. More so, the accuracy of the AI system that makes these conclusions is critical, for false positives and negatives will have serious consequences on the life of individuals.³⁵

Ultimately, the ethical framework for AI in international relations must be guided by a commitment to upholding human rights and promoting justice. This goes hand in hand with the development of fair and clear AI systems while at the same time establishing regulatory bodies overseeing the application of AI and handling abuses resulting from that. The dimension of the human rights perspective in the development of AI continues to be mainstreamed as one of the important pieces of leverage through which it is said the ethics which come along with AI will be navigated.

³² Allen & Chan (2016)

³³ Etzioni & Etzioni, (2017)

³⁴ Alexandra-Cristina (2023)

³⁵ Floridi et al. (2018)

2. Theoretical Framework and Methodological Approach

2.1 Introduction

This chapter will present an outline of the research methods of the current qualitative grounded theory study on the use of Artificial Intelligence as a tool of repression in border and State control and surveillance situations. The following sections investigate some theoretical concepts and frameworks, since they will be my essential lens through which to analyze the complex interaction of power dynamics, cultural nuances, and narrative construction. This section engages in theoretical exploration based on postcolonial theory, critical theory, and discourse analysis in an attempt to unravel and understand the multifaceted mechanisms that underpin the utilization of AI technologies in the perpetration of repression and control.

After constituting an in-depth review of the existing literature on postcolonialist theories and their applications in the realm of International Affairs, this paper's main goal for the forthcoming analysis becomes investigating the correlation and the intricate dynamics between the above-mentioned theories and Artificial Intelligence, with particular regard to its usage at State and Border control, investigating how AI technologies could be used as tools of oppression in the specific context of the Israel-Palestine conflict with regard to the border management systems. The research, therefore, investigates the multifaceted dimensions of governance but remains focused exclusively on AI-powered border controls in the region.

Thus, the primary question that guides such a research process is: *How does the deployment of AI in border control exacerbate issues concerning oppression and surveillance?* Such a question relates to a myriad of issues, the likes of discriminatory algorithms used for monitoring borders, the erosion of the right to privacy, and perpetuation of imbalance in power. Fundamentally, furthermore, even the potentially most far-reaching implication of this research question is based on an acknowledgment of Artificial Intelligence as a means of oppression against individual liberties and society. Artificial intelligence used in border control is likely to deepen the existing inequalities, making the most vulnerable groups bear a bigger part of the discriminatory burden due to biased algorithms, as well as by power imbalances and the violation of privacy rights. Such broadly framed epistemological treatment, however, is taken into account only in

relation to the human problems of the Israel-Palestine border controls to try to navigate the complex interlinkages between AI, oppression, and surveillance. The reason for this is to contribute to an understanding of human-rights abuses, discrimination, and privacy matters in general and, again, of the Israel-Palestine conflict in particular. Fundamentally, the research question ought to serve as an orientation guide in this fraught landscape of AI-driven border control within the Israel-Palestine conflict with respect to providing insight into which mechanisms perpetuate oppression. The study means to raise awareness regarding ethical issues related to AI in border management and to ensure more transparent and accountable practices in terms of technology deployment within the Israel-Palestine conflict environment.

2.1.1 Theoretical Framework

At the heart of our theoretical framework lies the pioneering insights of Edward Said, whose seminal work "Orientalism"³⁶ revolutionized the study of colonial discourse and power relations. Said's critique of Orientalist representations elucidates how Western knowledge production perpetuates stereotypes, hierarchies, and systems of domination, laying the groundwork for contemporary analyses of AI-enabled repression.

Said's concept of Orientalism unveils the ways in which Western intellectuals and institutions construct and essentialize the "Other" through discursive and visual representations. These Orientalist tropes not only serve to justify colonial expansion but also inform contemporary practices of surveillance and control, particularly at state borders.

Additionally, building upon Said's insights, many postcolonial theorists, among which Sareeta Amrute³⁷ and Safiya Noble³⁸, interrogate the asymmetrical power relations embedded within AI-driven surveillance technologies. The legacy of colonialism shapes perceptions of security threats and informs the deployment of AI systems to monitor and regulate populations, particularly those deemed as "Other" or non-conforming to hegemonic norms.

Drawing on Said's postcolonial framework, many are the scholars that examine how AI technologies perpetuate repressive practices within state and border control regimes,

³⁷ Amrute, S., Singh, R., & Guzmán, R. L. (2022)

_

³⁶ Said, E.W. (1977)

³⁸ Noble, S. U. (2018)

observing the ways in which AI-driven surveillance reinforces existing power differentials and exacerbates forms of social exclusion and marginalization.

Postcolonial theory centers on the voices and experiences of marginalized communities, offering critical insights into the lived realities of those subjected to AI-enabled repression. By foregrounding subaltern perspectives, we uncover the ways in which AI technologies are deployed to police and discipline vulnerable populations, often under the guise of national security.

Postcolonial analyses reveal how AI-enabled repression is legitimized through hegemonic narratives of security, progress, and technological superiority. These narratives serve the interests of dominant power structures, consolidating their control over governance and perpetuating systems of oppression.

Complementing the postcolonial lens is the framework of critical theory, which scrutinizes the underlying power structures and ideologies that inform state and border control practices. Drawing on the works of scholars like Michel Foucault³⁹, critical theory unveils the hidden mechanisms of surveillance and social control embedded within AI technologies.

Michel Foucault focuses on the theory of power and surveillance as a foundational aspect of his broader analysis of societal control mechanisms; he redefines power as a productive force that operates through social institutions, discourses, and practices. Instead of viewing power as purely repressive or coercive, he emphasizes its dispersed and relational nature. Power is not possessed by individuals or institutions but is diffused throughout society, shaping relationships and governing conduct⁴⁰.

Moreover, Foucault introduces the concept of the panopticon, where he describes a hypothetical prison design characterized by a central tower surrounded by cells. In the panopticon, inmates are subjected to constant surveillance, creating a sense of perpetual visibility and internalized discipline. This metaphor illustrates how surveillance functions as a mechanism of power⁴¹.

Foucault extends his analysis to encompass broader forms of surveillance and governance, exploring how surveillance techniques are embedded in everyday practices

_

³⁹ Foucault, M. (2007)

⁴⁰ Foucault, M. (1990)

⁴¹ Foucault, M. (1977)

and technologies. Governmentality refers to the rationalities and techniques through which populations are governed, encompassing not only state power but also self-governance and technologies of control.

Lastly, Foucault's theory of power and surveillance offers a nuanced understanding of the ways in which power operates in modern societies, emphasizing its productive, relational, and pervasive nature.

Critical theory unveils the asymmetrical power relations inherent in AI-driven surveillance, exposing how state actors wield technological advancements to monitor, regulate, and discipline populations. The panoptic gaze of AI surveillance perpetuates a culture of fear and compliance, constraining individual freedoms and dissent.

Through a critical lens, we interrogate the dominant ideologies underpinning AI-enabled repression, such as securitization discourse and nationalist rhetoric. Critical theory exposes the ways in which AI technologies serve the interests of the powerful elite, consolidating their control over governance and perpetuating social stratification.

Lastly, discourse analysis offers a methodological approach to deconstructing the narratives and discursive strategies employed in justifying AI-driven repression. By examining the language, symbols, and representations deployed by state actors and media outlets, discourse analysis unveils the underlying power dynamics and ideological underpinnings of AI-enabled border and state control.

Discourse analysis reveals how language is weaponized to construct and reinforce narratives of threat and insecurity, legitimizing repressive measures under the guise of national security. The discursive construction of "otherness" and "danger" serves to justify the expansion of surveillance and control mechanisms.

2.1.2 Application of the Theoretical Framework

In applying the outlined theoretical framework to the complex and deeply entrenched dynamics of AI as a tool of repression at border control in the Israeli-Palestinian conflict, we embark on an intricate exploration that unveils the intersecting realms of power, surveillance, discourse, and colonial legacies.

Edward Said's monumental work, "Orientalism," serves as an intellectual lodestar illuminating the contours of the Israel-Palestine conflict within the postcolonial discourse. Said's critique of Orientalist representations exposes the insidious ways in which Western

knowledge production perpetuates stereotypes, hierarchies, and systems of domination. Central to Said's argument is the notion that Orientalist tropes have historically essentialized and dehumanized Palestinians, relegating them to the realm of the "Other" and providing ideological justification for Israeli colonial expansion and occupation. These Orientalist representations continue to reverberate in contemporary practices of surveillance and control, particularly at state borders, where Palestinians are subjected to heightened scrutiny, restriction of movement, and systemic marginalization.

Moreover, contemporary postcolonial theorists, including Sareeta Amrute and Safiya Noble, delve into the asymmetrical power relations embedded within the intricate web of AI-driven surveillance technologies deployed in the Israeli-Palestinian context. The enduring legacy of colonialism permeates perceptions of security threats, informing the strategic deployment of AI systems to monitor and regulate Palestinian populations, especially those deemed as "Other" or divergent from hegemonic norms. The utilization of AI in border control exacerbates existing power differentials, exacerbating forms of social exclusion and marginalization among Palestinians, who find themselves ensnared within the labyrinthine apparatus of surveillance and control.

Michel Foucault's seminal contributions to critical theory furnish invaluable insights into the mechanics through which AI technologies are operationalized within Israeli border control practices. Foucault's conceptualization of power and surveillance as omnipresent and pervasive forces underpinning societal control mechanisms offers a lens through which to scrutinize the intricacies of AI-enabled repression in the occupied Palestinian territories. Foucault's conception of disciplinary power unveils how AI-driven surveillance serves as a potent tool for enforcing compliance and instilling fear among Palestinians, effectively stifling dissent and curbing individual agency within the confines of occupied territories. Furthermore, critical theorists endeavor to unearth the underlying ideological underpinnings that inform Israeli border control practices, such as the pervasive discourse of securitization and nationalist rhetoric. These ideological constructs not only rationalize but actively facilitate the expansion of surveillance and control mechanisms, thereby perpetuating the hegemonic dominance of the Israeli state and perpetuating entrenched systems of oppression and subjugation. In essence, AI technologies emerge as instrumental instruments wielded by the powerful elite to consolidate their grip on governance and reinforce existing structures of domination.

Discourse analysis emerges as a powerful methodological tool for unraveling the intricate narratives and discursive strategies deployed by the Israeli state to justify AI-driven repression in the occupied territories. Language is strategically weaponized to construct and perpetuate narratives of Palestinian "otherness" and "danger," thereby legitimizing repressive measures under the auspices of national security imperatives. The discursive construction of Palestinians as perennial "security threats" serves as a convenient pretext for the relentless expansion of surveillance and control mechanisms, thereby entrenching the hegemonic dominance of the Israeli state and perpetuating the systemic subjugation of Palestinian lives and territories.

In conclusion, the comprehensive application of this robust theoretical framework to the fraught terrain of AI as a tool of repression at border control in the Israeli-Palestinian conflict unveils a tapestry of power dynamics, surveillance mechanisms, and discursive strategies that converge to perpetuate entrenched systems of domination and subjugation. By foregrounding the voices and experiences of Palestinians and interrogating the ideological underpinnings that inform Israeli border control practices, we endeavor to advocate for justice, equality, and the realization of Palestinian rights within a framework of decolonization and self-determination.

2.2 Methodology and Scope

In this section, there will be an outline of the methodology and scope of the research. This approach combines a theoretical framework with practical application to ensure a comprehensive analysis. We detail the selection of data sources and sampling techniques used, aiming to provide transparency in the following research process. This chapter also discusses the analytical approach adopted and addresses the scope of the analysis, considering data availability and limitations. Through these methodological considerations, we aim to establish a robust foundation for the subsequent analysis.

2.2.1 Selection of Data Sources

The methodology employed for this thesis is characterized by a multifaceted approach that integrates diverse data sources, thereby facilitating a thorough and nuanced analysis of this intricate phenomenon, taking in particular a case study fitting for the topic chosen: the Israeli-Palestinian "Red Wolf" case, an AI-driven system used to tell Israeli soldiers at the borders whether Palestinians should pass, be interrogated, or detained. The scope

of inquiry encompasses a broad spectrum of qualitative data, drawing from newspapers, reports from non-governmental organizations and non-profits, and testimonies, each contributing distinct dimensions to the analysis.

Firstly, newspapers will stand as a primary data source, serving as a cornerstone of the data collection strategy, offering a rich repository of real-time events, investigative reports, and public discourse on the implementation and implications of AI technologies in border control practices. By meticulously examining news articles, investigative reports, opinion pieces, and editorial commentaries, this study seeks to define a comprehensive analysis charting the evolution of AI adoption at state borders in the case of the Israeli government.

In conjunction with newspapers, reports from non-governmental organizations (NGOs) and non-profits constitute a vital component of the methodological framework. Reports from organizations such as Amnesty International and 7amleh provide rigorous, independent investigations and empirical data on AI-enabled border control on the Israeli-Palestinian border. By meticulously scrutinizing these sources, this study endeavors to discern patterns and impacts of AI-driven border control practices, thereby enriching the analysis with empirical evidence.

Complementing the qualitative insights derived from newspapers and NGO/non-profit reports, this research incorporates testimonies from both Israeli soldiers, extrapolated thanks to "Breaking the Silence", another organization, composed by veterans and former combatants of the Israeli army. Some testimonies, obtained here by journalists of the eminent "International Journal of Middle East Studies", feature also Palestinian people, introducing an additional layer of analysis. Drawing upon personal experiences and firsthand accounts, these testimonies offer depth and context to the investigation. Through detailed examination of individual narratives, this study seeks to elucidate the human impact and ethical dimensions underpinning the deployment of AI technologies in border control operations.

Furthermore, testimonies provide critical insights necessary for understanding the mechanisms through which AI functions as a mechanism of repression within the context of state borders.

By triangulating a diverse array of data sources, this research aspires to offer a holistic and nuanced examination of AI as a tool of repression at state borders.

2.2.2 Sampling Techniques

The sampling techniques for this study are designed to ensure a comprehensive and representative collection of qualitative data from the diverse sources outlined in the methodology. For newspapers, a purposive sampling strategy will be employed. This approach will involve selecting articles that are particularly relevant to the topic of AIdriven border control at the Israeli-Palestinian border. The sample will include a variety of sources, such as mainstream national newspapers, investigative journalism outlets, and opinion editorials, ensuring a wide range of perspectives and coverage. The time frame for the articles will be from the initial implementation of the "Red Wolf" system to the present, allowing for an analysis of the system's evolution and public discourse over time. For reports from non-governmental organizations and non-profits, the study will use criterion-based sampling. This technique involves selecting reports that meet specific criteria related to the study's focus, such as those detailing the impact of AI on border control, human rights implications, and documented cases of AI usage in the Israeli-Palestinian context. Organizations like Amnesty International and 7amleh will be primary sources due to their established expertise and thorough investigative practices in this area. The selection of reports will also consider the credibility and relevance of the data, ensuring that only those with rigorous methodologies and empirical evidence are included.

The testimonies of Israeli soldiers and Palestinian individuals will be gathered through a combination of purposive and snowball sampling. For the Israeli soldiers' testimonies, the organization "Breaking the Silence" will provide a structured collection of firsthand accounts from veterans and former combatants. This purposive sampling ensures that the narratives directly relate to experiences with the "Red Wolf" system and broader AI applications in border control. Additionally, snowball sampling will be used to expand the pool of testimonies by leveraging existing contacts to identify further participants who have relevant experiences. This method will help uncover more personal and detailed accounts that might not be available through formal channels.

For Palestinian testimonies, the study will utilize sources obtained by journalists from the "International Journal of Middle East Studies," ensuring the inclusion of narratives that reflect the lived experiences of those directly impacted by the AI-driven border controls.

The purposive sampling of these testimonies will focus on accounts that provide insights into the human and ethical dimensions of AI deployment in border security operations. The sampling will aim to balance the representation of diverse experiences, ensuring that both Israeli and Palestinian perspectives are adequately covered.

Overall, by employing these sampling techniques, the study aims to create a robust and representative dataset that facilitates a nuanced analysis of AI as a tool of repression at state borders.

2.3 Analytical Approach

The analytical approach for this study is multifaceted, integrating various qualitative analysis methods to comprehensively examine the deployment and implications of the "Red Wolf" AI-driven border control system. The analysis will be conducted in several stages, each focusing on different dimensions of the collected data.

Initially, a thematic analysis will be employed to examine the newspaper articles. This method involves systematically identifying, analyzing, and reporting patterns (themes) within the data. By coding the articles and categorizing the content into recurring themes such as public perception, policy discussions, technological efficacy, and ethical considerations, this study aims to uncover how the media portrays the use of AI in border control. Thematic analysis will also help track the evolution of public discourse and governmental rhetoric over time, highlighting shifts in narrative and focus.

For the NGO and non-profit reports, a content analysis will be conducted. This involves a detailed examination of the text to identify the presence of certain words, themes, or concepts related to AI in border control. By quantifying and analyzing these patterns, content analysis will provide insights into the broader trends and concerns highlighted by these organizations. This method will help identify key issues such as human rights violations, ethical implications, and the societal impact of AI technologies at borders. The findings from content analysis will be cross-referenced with thematic analysis results to identify correlations and divergences between media representations and NGO reports.

The testimonies from Israeli soldiers and Palestinian individuals will be analyzed using narrative analysis. This approach focuses on the stories people tell and the way they make sense of their experiences. By examining the structure, content, and context of these narratives, the study will explore the personal and emotional dimensions of AI-driven

border control. Narrative analysis will provide a deeper understanding of the human impact, capturing the complexities and nuances that are often overlooked in broader reports. The analysis will look for recurring motifs, significant events, and personal reflections that illustrate the ethical and operational realities of the "Red Wolf" system. To ensure a holistic understanding, triangulation will be used, integrating findings from thematic, content, and narrative analyses. This method involves comparing and contrasting data from different sources to identify consistencies and discrepancies. Triangulation enhances the credibility and validity of the research by cross-verifying information and providing a more comprehensive view of the phenomenon.

Additionally, discourse analysis will be employed to examine how language is used in different contexts to construct social realities and power dynamics. This will involve analyzing the rhetoric used in media, reports, and testimonies to understand how AI in border control is framed and justified. Discourse analysis will help reveal underlying assumptions, ideologies, and power structures that influence the implementation and perception of AI technologies at borders.

By combining these analytical approaches, the study aims to provide a detailed and nuanced examination of the "Red Wolf" system. The integration of various qualitative methods will allow for a thorough exploration of the technological, ethical, and human dimensions of AI-driven border control, offering valuable insights into its role as a mechanism of repression.

2.4 Scope of Analysis and Data Availability

The scope of analysis for this study is inherently shaped by the complexities and sensitivities surrounding the use of AI-driven systems in border control, particularly in the context of the Israeli-Palestinian conflict. The primary focus is on the "Red Wolf" system, an AI-driven technology used to assess and decide on the movements of Palestinians at border checkpoints. The analysis aims to explore the implementation, effectiveness, and broader implications of this technology through multiple lenses: media representation, NGO and non-profit investigations, and personal testimonies from those directly affected.

The examination will encompass a variety of dimensions, including the technological, political, social, and ethical aspects of AI deployment at borders. It will delve into how

the technology is portrayed in media, the documented impacts on human rights and everyday life as reported by NGOs, and the personal experiences of both Israeli soldiers and Palestinian individuals. This multifaceted approach is intended to provide a comprehensive understanding of the role and consequences of AI in this context.

However, the scope of this analysis is inevitably constrained by several factors. Access to up-to-date and comprehensive data can be challenging. Newspaper articles may reflect biases depending on the publication's editorial stance, and there may be limitations in the depth and accuracy of investigative reports. NGO and non-profit reports, while generally thorough, may not cover all aspects of the issue comprehensively and can be influenced by the organizations' particular focus and resources.

Testimonies from individuals, although rich in personal detail, can be difficult to obtain in sufficient numbers and diversity to provide a fully representative picture. Additionally, these narratives are subject to personal biases and may not always capture the broader systemic issues. The sensitive nature of the conflict and the potential risks to participants can also limit the willingness of individuals to share their experiences candidly.

Moreover, the evolving nature of AI technology and its application means that data collected at different times may reflect varying stages of implementation and differing impacts. This temporal variability can complicate efforts to draw consistent conclusions across all sources.

Despite these limitations, the available data from newspapers, NGO reports, and testimonies provide a valuable foundation for analysis. While acknowledging the potential gaps and biases, the study will strive to critically assess the information at hand, triangulating across sources to mitigate some of the inherent limitations. By maintaining a critical and reflective approach, the analysis aims to offer a nuanced understanding of the "Red Wolf" system's implications, contributing to broader discussions on AI and border control practices in conflict zones.

3. The Red Wolf System: Implementation, Context, and Impact

3.1 Introduction

The third chapter of this thesis delves into a focused case study examining the deployment of the Red Wolf system by Israeli authorities, specifically its role in controlling Palestinian movement and reinforcing existing power imbalances. This case study serves as a pivotal component of the research, offering a concrete example of how Artificial Intelligence (AI) technologies are utilized within a highly contentious geopolitical context to exert control and perpetuate systemic repression.

The Red Wolf system represents a sophisticated AI-driven border control mechanism, designed to assess and dictate the movement of individuals at checkpoints between Israel and the Palestinian territories. Its implementation signifies a significant leap in the technological capabilities of state surveillance and border control, incorporating advanced facial recognition, behavior analysis, and predictive algorithms to monitor and regulate the passage of people. This case study aims to uncover the multifaceted implications of such a system, particularly focusing on how it exacerbates and entrenches existing power imbalances between Israel and Palestine.

First of all, the case study we'll take under analysis takes place in Hebron, a city in the West Bank, which, in 1997, was divided into two zones – H1 and H2 – under an agreement between Israeli authorities and the Palestinian Liberation Organization. H1, which makes up 80% of the city, is governed by the Palestinian authorities, while H2, including the Old City, is under full Israeli control. H2 is home to around 33,000 Palestinians and approximately 800 Israeli settlers who reside illegally in at least seven settlement enclaves.⁴²

Palestinian residents of H2 face stringent movement restrictions, with certain roads designated exclusively for Israeli settlers. An extensive network of military checkpoints and other obstacles, among which the Red Wolf system, severely disrupts their daily lives. Conversely, Israeli settlers in Hebron have unrestricted movement, as they are not required to use checkpoints and travel on different roads than Palestinians. These measures significantly impact the lives and livelihoods of Palestinians in H2, creating a

⁴² AbuSharar, S. (2021)

deeply unequal and unjust environment.⁴³

By concentrating on the Red Wolf system, this research highlights the specific mechanisms through which AI technology can be wielded as an instrument of oppression. It seeks to address key questions surrounding the ethical and human rights dimensions of AI deployment in border control, including the impact on privacy, freedom of movement, and the broader socio-political ramifications for Palestinians living under occupation.

The chapter begins with an overview of the Red Wolf system, detailing its technological features and the context of its deployment. This is followed by an examination of the historical and ongoing conflict between Israel and Palestine, providing the necessary backdrop to understand the significance of this technological intervention.

The objective is to provide a comprehensive understanding of how the Red Wolf system functions within the broader framework of Israeli border control practices, and how it impacts the daily lives of Palestinians. By exploring media narratives, local people's statements and testimonies, and responses from civil society, this chapter aims to present a balanced and nuanced account of the deployment and implications of the Red Wolf system.

Ultimately, this case study serves to illustrate the broader themes discussed in the preceding chapters, linking theoretical insights with empirical data to elucidate the complex dynamics at play. It underscores the profound ethical considerations and human rights concerns associated with the use of AI in state surveillance and border control.

3.2 Overview of the Red Wolf System

The Red Wolf system represents a cutting-edge advancement in the realm of AI-driven surveillance and border control, specifically designed and implemented by Israeli authorities to monitor and regulate the movement of individuals at checkpoints between Israel and the Palestinian territories. This section provides a detailed examination of the Red Wolf system, focusing on its technological components, operational mechanisms, and the strategic objectives it serves within the broader context of Israeli security and control measures.

At its core, the Red Wolf system integrates several advanced technologies to enhance the

-

⁴³ Suhais, J. (2023)

efficiency and effectiveness of border control. One of its primary features is facial recognition, which leverages AI algorithms to accurately identify individuals based on their facial features. This technology is capable of processing high volumes of data swiftly, ensuring that individuals are recognized and authenticated in real-time as they pass through checkpoints. The facial recognition component of the Red Wolf system is designed to match individuals against a comprehensive database, flagging those who are deemed suspicious or pose a perceived security threat⁴⁴.

In addition to facial recognition, the Red Wolf system employs behavior analysis algorithms. These algorithms analyze patterns of behavior and movement, identifying anomalies that might indicate potential security risks. For instance, the system can detect unusual walking patterns, prolonged loitering, or erratic movements that deviate from established norms.⁴⁵ By integrating behavioral analysis, the Red Wolf system aims to preemptively identify and mitigate threats before they materialize.

Another critical feature of the Red Wolf system is its predictive analytics capability. This involves the use of historical data and machine learning techniques to predict future behaviors and incidents. By analyzing past patterns of movement and incidents at checkpoints, the system can forecast potential security challenges, allowing authorities to allocate resources and personnel more effectively.⁴⁶ Predictive analytics not only enhances immediate security responses but also informs long-term strategic planning for border management.

The operational framework of the Red Wolf system is designed to be seamless and unobtrusive, ensuring that the flow of individuals through checkpoints is as smooth as possible while maintaining stringent security protocols. Checkpoints equipped with the Red Wolf system are outfitted with high-resolution cameras, sensors, and communication networks that transmit data to centralized control centers.⁴⁷ At these control centers, human operators and AI systems work in tandem to monitor real-time data feeds, respond to alerts, and make informed decisions regarding the movement of individuals.

The strategic objectives of the Red Wolf system extend beyond mere border control. It serves as a tool of broader socio-political control, reinforcing the existing power

⁴⁴ Amnesty International (2023)

⁴⁵ Liang, Y. et al. (2000)

⁴⁶ Amnesty International (2023)

⁴⁷ Amnesty International USA. (2024)

dynamics between Israel and Palestine. By tightening surveillance and control over Palestinian movement, the Red Wolf system effectively restricts the mobility and autonomy of the Palestinian population. This has profound implications for the daily lives of Palestinians, affecting their ability to travel for work, education, healthcare, and social connections⁴⁸. The system's pervasive surveillance also contributes to an atmosphere of constant monitoring and insecurity, exacerbating the already tense and volatile environment in the region.

Moreover, the deployment of the Red Wolf system is emblematic of a broader trend towards the militarization of AI technologies. It reflects a shift in how states leverage technological advancements to enhance their security apparatus and maintain control over contested territories. The use of AI in such a manner raises significant ethical and human rights concerns, particularly regarding the potential for discrimination, privacy violations, and the disproportionate impact on marginalized communities.⁴⁹

In summary, the Red Wolf system represents a sophisticated and multifaceted approach to border control, integrating advanced AI technologies to monitor, analyze, and predict individual behaviors at checkpoints. While it enhances the capabilities of Israeli authorities to manage security threats, it also reinforces existing power imbalances and imposes significant constraints on the freedom and autonomy of Palestinians. Understanding the Red Wolf system is crucial to comprehending the broader implications of AI in state surveillance and the ethical challenges it presents in the context of the Israeli-Palestinian conflict.

3.3 Historical and Political Context

The implementation of the Red Wolf system cannot be fully understood without considering the historical and political context within which it operates. The Israeli-Palestinian conflict has deep roots, extending back to the early 20th century with the rise of both Jewish and Arab nationalist movements in the region of Palestine, which was then part of the Ottoman Empire and later came under British mandate following World War I. The subsequent establishment of the State of Israel in 1948, and the ensuing Arab-Israeli War, led to the displacement of a significant number of Palestinians, an event

-

⁴⁸ Amnesty international (2023)

⁴⁹ 7amleh. (2023)

known as the Nakba, or catastrophe, in Palestinian history.

Following the 1967 Six-Day War, Israel occupied the West Bank and Gaza Strip, territories that are home to millions of Palestinians and have since been at the heart of the Israeli-Palestinian conflict. The occupation has resulted in a complex and often harsh system of control over the Palestinian population, including extensive surveillance, restricted movement, and various forms of economic and social restrictions. These measures have been justified by Israeli authorities as necessary for security, particularly in light of violent uprisings, such as the First and Second Intifadas, which saw significant violence and loss of life on both sides.

The Oslo Accords, signed in the 1990s, marked a significant but ultimately fragile step towards peace, establishing the Palestinian Authority and giving it limited autonomy over parts of the West Bank and Gaza. However, the peace process has largely stalled, and the political situation has remained tense, with frequent flare-ups of violence and continued expansion of Israeli settlements in the West Bank, which are considered illegal under international law but disputed by Israel.⁵⁰

In this volatile environment, the Red Wolf system has been introduced as part of Israel's broader strategy to maintain security and control over the Palestinian territories. This strategy includes the use of advanced technologies to monitor and restrict the movement of Palestinians. The system's deployment reflects a continuation and intensification of longstanding policies aimed at managing and controlling the Palestinian population, which has been a central aspect of Israeli policy since 1967.

The political landscape in Israel has also played a significant role in the development and implementation of surveillance technologies like the Red Wolf system. Israeli politics has seen a shift towards more right-wing and security-focused governments over the past two decades, with leaders emphasizing the need for stringent security measures to protect Israeli citizens from terrorist threats. This political climate has fostered an environment where technological solutions to security challenges are highly valued and rapidly developed.⁵¹

Furthermore, the technological prowess of Israel, often referred to as the "Start-Up Nation," has facilitated the development of sophisticated surveillance systems. Israel's

⁵⁰ Smith, C. D. (2017)

⁻

⁵¹ Smith, C. D. (2017)

tech industry is among the most advanced in the world, particularly in fields related to security and military technology.⁵² Companies and research institutions within Israel have been at the forefront of developing AI and surveillance technologies, which are then implemented in various security contexts, including the Red Wolf system.

The international dimension also plays a critical role in the context of the Red Wolf system. The United States, a key ally of Israel, has provided substantial military aid and political support, which has enabled Israel to maintain its technological edge in security and surveillance.⁵³ Additionally, the global war on terror, particularly post-9/11, has seen increased legitimacy and demand for advanced surveillance technologies for border control worldwide, further entrenching their use in managing conflicts and perceived security threats⁵⁴.

3.3.1 The Role of Surveillance in the Conflict

Surveillance has long played a crucial role in the Israeli-Palestinian conflict, serving both as a means of security and control. The use of surveillance by Israeli authorities dates back to the early years of the conflict but has evolved significantly with advances in technology. The modern surveillance infrastructure includes a sophisticated array of tools such as drones, CCTV cameras⁵⁵, biometric systems, and AI-powered monitoring platforms like the Red Wolf system⁵⁶.

The introduction and implementation of the Red Wolf system mark a significant evolution in the use of surveillance technology within the Israeli-Palestinian conflict.

The system was initially conceptualized as a response to the growing need for more efficient and comprehensive surveillance mechanisms. Israeli authorities have long emphasized the necessity of maintaining robust security infrastructures to counter threats from militant groups and to manage the complex security dynamics of the West Bank and Gaza Strip⁵⁷. The development of Red Wolf involved collaboration between Israeli defense forces and private tech companies specializing in artificial intelligence and

⁵² Senor, D., & Singer, S. (2011)

⁵³ Sharp, J. M. (2006)

⁵⁴ 7amleh. (2023)

⁵⁵ Closed Circuit Television

⁵⁶ 7amleh. (2023)

⁵⁷ Shezaf, H. (2023)

biometric technologies.

Functionally, the Red Wolf system integrates various surveillance tools, including highresolution cameras, facial recognition software, and data analytics platforms. These components work together to provide real-time monitoring and identification of individuals within monitored areas. One of the primary applications of Red Wolf is at checkpoints, where it scans faces and cross-references them with a database of known individuals, flagging those deemed as potential security threats⁵⁸. This process is intended to streamline security checks and enhance the ability of security personnel to make informed decisions.

The integration of surveillance technology into the conflict has multifaceted implications. Primarily, it serves as a tool for maintaining security and preventing terrorist activities. Israeli officials have frequently emphasized that enhanced surveillance capabilities are vital in monitoring and preempting potential threats from militant groups operating within the Palestinian territories. For instance, real-time monitoring allows for rapid responses to potential security breaches, ostensibly reducing the risk of attacks on Israeli civilians and military personnel.⁵⁹

However, surveillance is not only a defensive measure but also a means of exerting control over the Palestinian population. The extensive surveillance network in the West Bank and Gaza Strip functions to monitor daily activities and movements of Palestinians, thereby restricting their freedom and enforcing compliance with Israeli regulations. This pervasive monitoring has significant psychological and social impacts, contributing to a climate of fear and mistrust among Palestinians. As admitted by the First Seargent of Nahal, 50th Battalion, in Hebron, the Red Wolf system's ultimate goal, is to enter people into its system in order to control them:

The military doesn't send you [there] to make their lives more pleasant, to allow them to pass through the checkpoint more easily. It's not that the military has said, let's make the Blue Wolf so they can pass through more easily. The military wants to enter the people into its system for control. So every name that pops up they can immediately enter it into like their databases. In the end, before an arrest, we would take the Blue Wolf, enter the ID [number] and the name, see his photo.

⁵⁸ Robins-Early, N. (2024)

⁵⁹ Amnesty International 2023

Sometimes the military doesn't have his name in the system, and on arrests you really understand the preoccupation with taking photos. If there's no photo of him because he hasn't gone through any checkpoints, in [front of] any cameras, then you don't know who you're looking for, it's less convenient for you. It's less convenient for the military.⁶⁰

The Red Wolf system, an AI-powered surveillance tool, exemplifies the advanced technological measures employed by Israel. This system utilizes facial recognition technology to identify and track individuals, integrating data from various sources to maintain comprehensive surveillance coverage. Its deployment at checkpoints and other strategic locations enables continuous monitoring of movement and identification of persons deemed as threats; arguably exacerbating existing power imbalances and perpetuating a cycle of oppression, as they are often used to justify arbitrary detentions and restrictions on movement.⁶¹

Moreover, the use of surveillance technologies raises significant ethical and human rights concerns. International human rights organizations have highlighted that the intrusive nature of surveillance infringes on the privacy and dignity of individuals. The data collected through these systems can be used for profiling and targeting specific groups, leading to discrimination and abuse.⁶² The deployment of surveillance technologies in occupied territories is particularly contentious, as it operates within a legal and political framework that many consider to be a form of colonial domination.

The international community has also reacted to the use of surveillance in the Israeli-Palestinian conflict. Various countries and international bodies have called for greater transparency and accountability regarding the use of such technologies. The United Nations has periodically addressed the issue, urging Israel to ensure that its security measures comply with international human rights standards.⁶³

Newspapers and media reports have extensively covered the role of surveillance in the conflict, shedding light on its impacts and the broader geopolitical implications.

⁶⁰ Breaking the Silence > Testimony > The military wants to enter the people into its system for control. (2020).

⁶¹ Amnesty International 2023

⁶² Aboeid, S. (2023)

⁶³ Heaney, C. (2023)

Articles in publications like *The Washington Post*⁶⁴ and *The New York Times*⁶⁵ have documented cases where surveillance technology has been used to monitor and control the Palestinian population, drawing attention to the ethical dilemmas involved. These reports often highlight personal stories of Palestinians affected by surveillance, providing a human perspective on the broader political and technological dynamics at play.

3.4 Implementation of the Red Wolf System

The implementation phase of Red Wolf involves significant logistical and infrastructural changes. Checkpoints and other critical security locations are equipped with the necessary hardware, including cameras and sensors, while the software components are integrated with existing databases and surveillance networks. Training programs are conducted for security personnel to familiarize them with the new system and to ensure its effective operation. The rollout of Red Wolf was phased, starting with high-priority areas and gradually expanding to other regions.

Despite its intended security benefits, the implementation of the Red Wolf system has been met with considerable controversy and criticism. Human rights organizations and Palestinian advocacy groups have raised concerns about the implications of such pervasive surveillance on civil liberties and privacy rights. They argue that the system's ability to track and monitor individuals continuously can lead to abuses of power and exacerbate the already tense situation in the region. Moreover, there are fears that the data collected could be misused for purposes beyond security, such as political repression and social control.⁶⁷

Reports in various newspapers have highlighted instances where the Red Wolf system has allegedly been used to target specific individuals or groups, leading to arbitrary detentions and restrictions on movement. For example, an article in the *International Journal of Middle East Studies* described how the system flagged a young Palestinian girl, resulting in her detention without clear evidence of wrongdoing.⁶⁸ Such incidents underscore the potential for misuse and the challenges in balancing security needs with

⁶⁴ Dwoskin, E. (2021)

⁶⁵ Frenkel, S. (2024)

⁶⁶ Suhais, J. (2023)

⁶⁷ Dwoskin, E. (2021)

⁶⁸ Goodfriend, S. (2023)

respect for human rights.

Furthermore, the technological sophistication of the Red Wolf system raises questions about data security and the potential for cyber threats. Ensuring that the system is not vulnerable to hacking or unauthorized access is a critical concern, as breaches could compromise sensitive information and undermine the overall security objectives.⁶⁹ The integration of AI and biometric data also poses ethical questions about the extent to which such technologies should be used in surveillance and law enforcement.

3.4.1 Mechanics of the Red Wolf System

The Red Wolf system operates through a sophisticated combination of hardware and software components designed to enhance security and surveillance capabilities in high-risk areas. Central to its functionality are high-resolution cameras, facial recognition technology, and advanced data analytics, all of which work in unison to provide real-time monitoring and threat assessment.

A First Sergeant in Hebron explains:

A person arrives and goes through a security check. He gives me his ID. I put it into [the system]. If it goes green on the computer, he goes through a security check and moves on. If it goes yellow, I have to call... Yellow is unidentified, unknown, something like that. There's this number you call, the division, the DCL (District Coordination and Liaison office, a regional unit of the Civil Administration), and they tell you what to do. And if it's red, there's the protocol. You lock down the whole turnstile [at the checkpoint], call to have him picked up because he's wanted for arrest.

[...]

There's something like ten cameras. Once they arrive and pass through inside, it essentially takes photos, identifies them, to help you as the soldier standing there. It catches the face before [they enter], and it displays the face for you on the computer. If it's someone who's been coming through there a lot, the computer already knows them. It takes photos of everyone who passes there essentially. And you, as a soldier, a commander, standing there, can match the face to the IDs until

-

⁶⁹ Suhais, J. (2023)

the system learns [to recognize] the face. It recognizes him, and then he comes, and he's already lit green for me even before he showed me an ID, and so it makes the process shorter for him, in theory.⁷⁰

The primary hardware components of the Red Wolf system include strategically placed high-definition cameras capable of capturing detailed images of individuals passing through monitored areas. These cameras are installed at various security checkpoints, border crossings, and other critical locations within the West Bank and Gaza Strip. According to a report from *The Times of Israel*, the system's cameras are equipped with infrared capabilities, allowing them to operate effectively both day and night, ensuring continuous surveillance.⁷¹

Once an individual's image is captured, the system's facial recognition software processes the data. This software, developed by leading Israeli technology firms in collaboration with defense agencies, uses complex algorithms to match captured images with a vast database of known individuals. The database includes information on suspected militants, individuals with previous security-related offenses, and other persons of interest. An article from *The New York Times* details that the software's accuracy is enhanced by machine learning techniques that improve its ability to recognize faces over time, even under varying conditions such as changes in lighting or facial hair, reaching the point of needing less than 50% of a face to be visible for it to recognize it correctly.⁷² The data collected by the cameras is transmitted to central processing units where it is analyzed in real-time. The Red Wolf system's data analytics platform plays a crucial role in this process. It not only identifies and flags individuals who match entries in the security database but also analyzes patterns and behaviors that might indicate potential threats. For instance, the system can detect unusual movements or activities that deviate from established norms, prompting further investigation by security personnel.

The operational mechanics of the Red Wolf system also include a robust communication infrastructure. This ensures that data and alerts generated by the system are promptly relayed to relevant security forces. Command centers equipped with monitoring stations receive live feeds and alerts, allowing for immediate action. Security personnel at checkpoints and patrol units are equipped with mobile devices that receive real-time

40

⁷⁰ Breaking the Silence > Testimony > The computer already knows them. (2020).

⁷¹ Robins-Early, N. (2024)

⁷² Frenkel, S. (2024)

updates, enabling them to act swiftly and appropriately based on the information provided by the system.

Despite its advanced technological capabilities, the Red Wolf system has not been without criticism. Concerns have been raised regarding the potential for false positives and the subsequent impact on individuals mistakenly identified as threats. Human rights organizations argue that the reliance on such technology can lead to violations of privacy and civil liberties, particularly in a highly volatile and politically sensitive environment like the Israeli-Palestinian conflict. These issues underscore the importance of implementing strict oversight and accountability measures to ensure that the system is used ethically and responsibly.⁷³

3.5 Impact on Palestinian Communities

The implementation of the Red Wolf surveillance system has had profound and multifaceted impacts on Palestinian communities. While the system aims to enhance security, its pervasive presence and operational methods have significantly affected the daily lives and human rights of Palestinians.

One of the most immediate impacts of the Red Wolf system is the heightened sense of surveillance experienced by Palestinians. The omnipresence of high-definition cameras and facial recognition technology creates an environment where individuals are constantly monitored. This pervasive surveillance can lead to a pervasive feeling of being watched, which can be psychologically distressing. As reported by *Amnesty International*, many Palestinians feel a loss of privacy and autonomy, exacerbating feelings of mistrust and fear towards the authorities operating the system.⁷⁴

This scenario reflects Michel Foucault's concept of disciplinary power, explored in the previous chapter, where surveillance is used as a tool for control and regulation of behavior within a society.⁷⁵

The Red Wolf system's reliance on facial recognition technology has also led to numerous instances of false identification, where individuals are mistakenly flagged as security threats. These false positives can result in unwarranted detentions, questioning, and

_

⁷³ Amnesty International. (2023)

⁷⁴ Amnensty International. (2023)

⁷⁵ Foucault, M. (1977).

delays at checkpoints, severely disrupting daily activities such as commuting to work, attending school, and accessing medical care. According to the Amnesty International report, the frequent misidentifications have led to a significant increase in the number of Palestinians experiencing undue scrutiny and harassment, further straining the relationship between the Palestinian community and Israeli security forces.

Additionally, the system's data analytics capabilities, which track and analyze patterns of movement and behavior, can lead to unwarranted profiling and discrimination. The analytics can create profiles based on an individual's travel habits, social associations, and other behaviors deemed suspicious by the algorithm. This form of predictive policing, as detailed in the report, often disproportionately targets certain groups within the Palestinian population, leading to increased stigmatization and marginalization.⁷⁶

The impact on freedom of movement is another significant concern. The presence of the Red Wolf system at numerous checkpoints means that Palestinians must pass through these high-surveillance areas regularly. Delays caused by the system's identification processes and the subsequent checks can lead to significant travel disruptions.

The economic implications of the Red Wolf system are also notable. The disruptions caused by delays and detentions can hinder economic activities, affecting livelihoods. Merchants and workers who need to cross checkpoints daily to reach markets or places of employment face increased uncertainty and potential income loss.

Furthermore, the widespread use of surveillance technology has raised significant human rights concerns. Organizations such as Human Rights Watch and Amnesty International have criticized the Red Wolf system for its potential to facilitate systematic human rights abuses. These organizations argue that the surveillance apparatus not only violates the right to privacy but also exacerbates existing power imbalances, contributing to a regime of control and subjugation, also emphasizing that the use of such invasive technology in a context of occupation further entrenches the disparity between Israelis and Palestinians, making it harder to achieve a just and peaceful resolution to the conflict.⁷⁷

3.5.1 Power Dynamics and Ethical Concerns

The implementation of the Red Wolf surveillance system in the context of the Israeli-

⁷⁶ Amnesty International (2023)

⁷⁷ Amnesty International (2023)

Palestinian conflict not only affects the daily lives of Palestinians but also underscores significant power dynamics and ethical concerns. This section delves into how the system exacerbates existing power imbalances and raises profound ethical questions.

The Red Wolf system, developed and deployed by the Israeli government, is emblematic of the technological superiority and control exercised by Israel over the Palestinian territories. The advanced surveillance technology grants the Israeli authorities unprecedented access to monitor, track, and analyze the movements and behaviors of Palestinians. This technological advantage inherently creates an uneven power dynamic, where one side possesses significant control over the other. According to an article in *The Guardian*, this disparity in surveillance capabilities reinforces the existing power imbalance between Israelis and Palestinians, as it allows for a form of omnipresent oversight and control that is not reciprocated.⁷⁸

Ethically, the use of such intrusive surveillance technology raises several red flags. The Red Wolf system's ability to conduct mass surveillance without individual consent constitutes a violation of privacy rights. The Universal Declaration of Human Rights, to which Israel is a signatory, affirms the right to privacy; thus, the deployment of such technology in occupied territories is viewed by many human rights organizations as a breach of international law. Human Rights Watch has documented numerous cases where the pervasive surveillance has led to arbitrary detentions and harassment, arguing that these practices are incompatible with the principles of human dignity and freedom⁷⁹.

Moreover, the predictive analytics used by the Red Wolf system to identify potential security threats often rely on biased algorithms. These algorithms, based on historical data, can perpetuate and amplify existing prejudices, leading to disproportionate targeting of specific groups within the Palestinian population. This form of digital profiling can be considered a modern incarnation of discriminatory practices, embedding systemic biases into ostensibly neutral technological systems.

The ethical implications extend to the psychological impact on the Palestinian population. Constant surveillance can lead to a form of psychological oppression, where individuals alter their behavior out of fear of being monitored or flagged as a threat.

Yaser Abu Markhyah, a Palestinian man states:

-

⁷⁸ Robins-Early, N. (2024)

⁷⁹ Aboeid, S. (2023)

"We no longer feel comfortable socializing because cameras are always filming us." 80

This state of perpetual surveillance can lead to anxiety, stress, and a general sense of insecurity among Palestinians, which is an insidious form of psychological control⁸¹.

Furthermore, the deployment of the Red Wolf system in the occupied territories raises questions about consent and autonomy. The Palestinian population has no say in the implementation or operation of these surveillance measures, effectively stripping them of agency. This lack of consent highlights the broader ethical issue of imposing advanced surveillance technologies on a population without their approval, a practice that many argue contravenes the principles of democratic governance and self-determination.⁸²

As a First Sergeant in Hebron explains:

Whoever you want you can stop and ask for ID. You're standing there, like, four people with weapons in front of him, some of them, they kind of say, "I'm not willing to be photographed, I'm not willing to be photographed,", but if there's an assertive squad commander then he photographs him anyway, if there's a squad commander who's less assertive, then he might give in to him. But in general most don't resist it.⁸³

According to *the Amnesty International 2023 report*, this imposition further entrenches the view that the surveillance system is a tool of domination rather than a legitimate security measure.⁸⁴

In conclusion, the Red Wolf surveillance system not only impacts the daily lives of Palestinians but also accentuates existing power imbalances and raises significant ethical concerns. The use of advanced surveillance technology in this context highlights issues related to privacy, consent, discrimination, and psychological well-being. Addressing these ethical concerns requires a reevaluation of the deployment and operational practices of such systems, ensuring that they adhere to international human rights standards and respect the dignity and autonomy of all individuals.

⁸⁰ Dwoskin, E. (2021)

^{81 7}amleh. (2023)

⁸² Abulof, U. (2015)

⁸³ Breaking the Silence > Testimony > The point was to take photos. (n.d.).

⁸⁴ Amnesty International (2023)

Conclusion

In conclusion, the deployment of AI technologies in the realm of state surveillance and border control, particularly within the context of the Israeli-Palestinian conflict, serves as a poignant illustration of the profound ethical, political, and social implications these technologies entail. Through the comprehensive analysis presented, it becomes evident that AI systems, such as the Red Wolf, are not mere tools of technological advancement but are deeply entwined with the power dynamics and ideologies that underpin state practices and policies.

The application of AI at border controls exemplifies how technological superiority can reinforce existing power imbalances and perpetuate systemic oppression. The Israeli state's use of AI to surveil and control Palestinian populations illustrates a broader trend where digital technologies are harnessed to maintain and enhance state power, often at the expense of marginalized communities' rights and freedoms. This dynamic is further exacerbated by the biased nature of AI algorithms, which can entrench and amplify pre-existing prejudices, leading to discriminatory practices and outcomes.

Ethically, the pervasive surveillance enabled by AI technologies raises significant concerns about privacy, consent, and human dignity. The lack of agency afforded to the Palestinian population in this context underscores a fundamental breach of democratic principles and human rights. The psychological impact of constant surveillance, leading to a state of perpetual anxiety and insecurity, further highlights the insidious nature of these technologies when used as instruments of control.

Moreover, the ideological underpinnings that justify the use of AI in such contexts are deeply rooted in narratives of securitization and national security. By constructing Palestinians as perpetual security threats, the Israeli state legitimizes its repressive measures, thereby normalizing the expansion of surveillance and control mechanisms. This discourse not only dehumanizes the targeted population but also obfuscates the underlying political and social injustices that fuel conflict and unrest.

In advocating for justice, equality, and the realization of Palestinian rights, this thesis foregrounds the voices and experiences of those most affected by these technologies. It calls for a critical reevaluation of the deployment and operational practices of AI systems, emphasizing the need for regulatory frameworks that prioritize human rights and ethical considerations. Only through such critical inquiry and action can we hope to navigate the

complexities of AI's impact on society, ensuring that technological advancements serve to promote rather than undermine the principles of justice and human dignity.

Ultimately, this study contributes to the broader discourse on the role of AI in contemporary governance and highlights the urgent need for ethical and responsible deployment of these technologies. By unpacking the intricate narratives and power dynamics at play, it aims to foster a more nuanced understanding of AI's potential and pitfalls, advocating for a future where technology is harnessed to uphold rather than erode human rights and democratic values .

References

7amleh. (2023). Israel's surveillance industry and human rights: Impact on Palestinians and worldwide. https://7amleh.org/storage/Israel's%20Surveillance%20Industry%20english4.pdf

Aboeid, S. (2023, June 6). Palestinian Forum highlights threats of autonomous weapons. Human Rights Watch. https://www.hrw.org/news/2023/06/06/palestinian-forum-highlights-threats-autonomous-weapons

Abulof, U. (2015). The Confused Compass: From Self-determination to State-determination. Ethnopolitics, 14, 488 - 497.

AbuSharar, S. (2021, October 12). Confined by Israel, elderly Palestinians of Hebron face social isolation. Anadolu Agency. https://www.aa.com.tr/en/life/confined-by-israel-elderly-palestinians-of-hebron-face-social-isolation/2389475#

Adey, P. (2012). Borders, identification and surveillance: New regimes of border control. In Routledge handbook of surveillance studies (pp. 193-200). Routledge.

Alexandra-Cristina, D. I. N. U. (2023, May). Cyber Diplomacy and Artificial Intelligence: Opportunities and Challenges. In Proceedings of the International Conference on Cybersecurity and Cybercrime-2023 (pp. 86-93). Asociatia Romana pentru Asigurarea Securitatii Informatiei.

Allen, G., & Chan, T. (2017). Artificial intelligence and national security (Vol. 132). Cambridge, MA: Belfer Center for Science and International Affairs.

Amnesty International USA. (2024, January 12). Israel/OPT: Israeli authorities are using facial recognition technology to entrench apartheid | Amnesty International USA. https://www.amnestyusa.org/press-releases/israeli-authorities-using-facial-recognition-tech-to-entrench-apartheid/

Amnesty International. (2023, May 18). Israel and Occupied Palestinian Territories: Automated Apartheid: How facial recognition fragments, segregates and controls Palestinians in the OPT – Amnesty International. https://www.amnesty.org/en/documents/mde15/6701/2023/en/

Amrute, S., Singh, R., & Guzmán, R. L. (2022). A primer on AI in/from the Majority World: An Empirical Site and a Standpoint.

Andreu-Perez, J., Deligianni, F., Ravi, D., & Yang, G. Z. (2018). Artificial Intelligence and robotics. arXiv preprint arXiv:1803.10813.

Breaking the Silence > Testimony > The computer already knows them. (2020). Breaking the Silence. https://www.breakingthesilence.org.il/testimonies/database/820366

Breaking the Silence > Testimony > The military wants to enter the people into its system for control. (2020). Breaking the Silence. https://www.breakingthesilence.org.il/testimonies/database/424318

Breaking the Silence > Testimony > The point was to take photos. (2020). Breaking the Silence. https://www.breakingthesilence.org.il/testimonies/database/280983

Buolamwini, J., & Gebru, T. (2018). Gender Shades: Intersectional Accuracy
Disparities in Commercial Gender Classification. Proceedings of Machine Learning
Research.

Cristianini, N. (2021). Shortcuts to artificial intelligence.

Dwoskin, E. (2021, November 8). Israel escalates surveillance of Palestinians with facial recognition program in West Bank. Washington Post. https://www.washingtonpost.com/world/middle_east/israel-palestinians-surveillance-facial-recognition/2021/11/05/3787bf42-26b2-11ec-8739-5cb6aba30a30_story.html

Entry-Exit System. (2017). Migration and Home Affairs. https://home-affairs.ec.europa.eu/policies/schengen-borders-and-visa/smart-borders/entry-exit-system en

Feldstein, Steven. (2019). How artificial intelligence is reshaping repression. Journal of Democracy, 30(1), 40-52.

Feldstein, Steven. (2021). The rise of digital repression: How technology is reshaping power, politics, and resistance. Oxford University Press.

Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., ... & Vayena, E. (2018). AI4People—an ethical framework for a good AI society: opportunities, risks, principles, and recommendations. Minds and machines, 28, 689-707.

Foucault, M. (1977). Discipline and Punish: The Birth of the Prison.

Foucault, M. (1990). The history of sexuality: An introduction, volume I. Trans. Robert Hurley. New York: Vintage, 95, 1-160.

Foucault, M. (2007). Security, territory, population: lectures at the Collège de France, 1977-78. Springer.

Frantz, E., Kendall-Taylor, A., & Wright, J. (2020). Digital repression in autocracies. Varieties of Democracy Institute Users Working Paper (27), 1-22.

Frenkel, S. (2024, March 27). Israel deploys expansive facial recognition program in Gaza. The New York Times. https://www.nytimes.com/2024/03/27/technology/israel-facial-recognition-gaza.html

Garvie, C. (2016). The perpetual line-up: Unregulated police face recognition in

America. Georgetown Law, Center on Privacy & Technology.

Goodfriend, S. (2023). Algorithmic State Violence: Automated Surveillance and Palestinian Dispossession in Hebron's Old City. International Journal of Middle East Studies, 55(3), 461-478.

Heaney, C. (2023, March 2). Report of the Special Rapporteur on the situation of Human rights in the Palestinian territories occupied since 1967 (A/HRC/49/87) - Question of Palestine. Question of Palestine. https://www.un.org/unispal/document/report-of-the-special-rapporteur-on-the-situation-of-human-rights-in-the-palestinian-territories-occupied-since-1967-report-a-hrc-49-87-advance-unedited-version/

Kawash, A. (2024, February). Impacts of AI technologies on Palestinian lives and narratives. https://7amleh.org/storage/AI%20&%20Racism/7amleh%20-4I%20english1-1.pdf

Koslowski, R. (2011). The evolution of border controls as a mechanism to prevent illegal immigration. Migration Policy Institute, Washington, DC.

Kumar, A., & Batarseh, F. A. (2020). The use of robots and artificial intelligence in war. London School of Economics Business Review.

Liang, Y., Crnic, L., Kobla, V., Wolf, W., & Inc, C. S. (2000, November 24). US6678413B1 - System and method for object identification and behavior characterization using video analysis - Google Patents. https://patents.google.com/patent/US6678413B1/en

Manheim, K., & Kaplan, L. (2019). Artificial intelligence: Risks to privacy and democracy. Yale JL & Tech., 21, 106.

Minsky, M. (1961). Steps toward artificial intelligence. Proceedings of the IRE, 49(1), 8-30.

Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The ethics of algorithms: Mapping the debate. Big Data & Society, 3(2), 2053951716679679.

Ndzendze, Bhaso, and Tshilidzi Marwala. Artificial Intelligence and International Relations Theories. 1st ed. 2023. Singapore: Palgrave Macmillan, 2023. Web.

Noble, S. U. (2018). Algorithms of oppression: How search engines reinforce racism. In Algorithms of oppression. New York university press.

Raji, I. D., & Buolamwini, J. (2019, January). Actionable auditing: Investigating the impact of publicly naming biased performance results of commercial ai products. In Proceedings of the 2019 AAAI/ACM Conference on AI, Ethics, and Society (pp. 429-435).

Robins-Early, N. (2024, April 22). How Israel uses facial-recognition systems in Gaza and beyond. The Guardian. https://www.theguardian.com/technology/2024/apr/19/idf-facial-recognition-surveillance-palestinians

Rumford, C. (2006). Theorizing borders. European journal of social theory, 9(2), 155-169.

Said, E. W. (1977). Orientalism. The Georgia Review

Senor, D., & Singer, S. (2011). Start-up nation: The story of Israel's economic miracle. McClelland & Stewart.

Sharp, J. M. (2006, January). US foreign aid to Israel. Congressional Research Service, Library of Congress.

Shezaf, H. (2023, May 2). Israel using facial recognition technology to entrench apartheid, Amnesty International says. Haaretz.com. https://www.haaretz.com/israel-news/2023-05-02/ty-article/.highlight/israel-using-facial-recognition-tech-to-entrench-apartheid-amnesty-intl-says/00000187-db8a-d9b4-abaf-fbbe6c080000

Smart borders: European Union entry/exit system | EUR-Lex. (n.d.). https://eur-lex.europa.eu/EN/legal-content/summary/smart-borders-european-union-entry-exit-system.html#:~:text=The%20EES%20will%20be%20an,%2Dexempt%20non%2DEU%20countries.

Smith, C. D. (2017). Palestine and the Arab-Israeli conflict: A history with documents. Boston: Bedford/St. Martin's.

Staff, T. (2023, May 2). Israel increasingly using facial recognition to track Palestinians

– Amnesty. The Times of Israel. https://www.timesofisrael.com/israel-increasingly-using-facial-recognition-to-track-palestinians-amnesty/

Strat, F. E. (2023). Insecurity Unveiled? China and Israel's Use of AI and Mass Surveillance for National Security and Identity.

Suhais, J. (2023, May 19). Red Wolf and the Surveillance State: Investigating the Human rights Implications of AI-Powered Facial. The Dialogue Box. https://thedialoguebox.com/red-wolf-surveillance-israel/

Van der Ploeg, I. (2005). The Machine-readable Body: Esseys of Biometrics and the Informatization of the Body. Shaker Publishing.

Walsh, J. (2008). Community, surveillance and border control: The case of the minuteman project. In Surveillance and Governance: Crime control and beyond (pp. 11-34). Emerald Group Publishing Limited.

Walsh, J. P. (2010). From Border Control to Border Care: The Political and Ethical Potential of Surveillance. Surveillance & Society, 8(2), 113-130.