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**Digital Reproductive Governance in Iran:
Surveillance, Bodily Autonomy, and Feminist Resistance**

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Abstract

In recent years, Iran has undergone a profound transformation in its population policies, shifting from public health-oriented family planning toward an increasingly restrictive pronatalist agenda. Following the enactment of the 2021 Law on Supporting the Family and the Youth of the Population, reproductive governance has become increasingly embedded within digital health infrastructures that enable the collection, integration, and monitoring of reproductive data. While these systems are officially presented as mechanisms for improving maternal health, they simultaneously expand state capacity to monitor reproductive behavior and restrict bodily autonomy.

This thesis examines how the digitalization of healthcare has reshaped reproductive governance in Iran and investigates its implications for women's reproductive rights, privacy, and bodily autonomy. Drawing upon Foucauldian biopolitics, reproductive governance, digital authoritarianism, technofeminism, and data justice, the study analyses the intersection of law, technology, and lived experience.

Methodologically, the research combines legal and policy analysis of the 2021 population law with an examination of digital surveillance infrastructures, including the SIB health system, the National Healthy Pregnancy Registry, and the Abortion Reporting Portal. These findings are complemented by empirical material consisting of an Instagram-based survey conducted through Zaagaah's public platform together with participant observation developed through sustained involvement in Zaagaah, a feminist accompaniment network supporting access to reproductive healthcare in Iran.

The findings demonstrate that reproductive governance in Iran has evolved into a form of digital reproductive governance, in which reproductive control is exercised not only through legal restrictions but also through interconnected digital infrastructures that render reproductive life increasingly visible and governable. The thesis further develops the concept of digital reproductive anxiety to explain how anticipated surveillance reshapes healthcare-seeking behavior, producing fear, delayed medical care, and self-censorship even in the absence of direct state intervention. At the same time, the case of Zaagaah illustrates that digital technologies also create opportunities for feminist resistance by enabling alternative infrastructures of care, knowledge sharing, and accompaniment.

By integrating legal analysis with empirical evidence, this thesis contributes to research on reproductive governance, digital authoritarianism, and data justice. It argues that in contemporary authoritarian contexts, struggles over reproductive rights extend beyond access to abortion and healthcare to encompass questions of data governance, digital surveillance, and the right to bodily autonomy in an increasingly datafied society.

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Introduction

Declining fertility rates and demographic transformations in recent decades have emerged as a major challenge across many countries in Europe and Asia. Concerns over population ageing, shrinking labor forces, and the increasing proportion of elderly populations requiring long-term social and economic support have placed demographic change at the center of policy debates. As a result, population governance has re-emerged as a central domain of state intervention, with governments seeking to manage fertility rates and demographic trends through a variety of policy tools. In this context, as Morgan and Roberts¹ argue, we are witnessing the intensification of "reproductive governance", the complex set of mechanisms through which various actors, including the state, medical institutions, and religious authorities, use legislative, medical, and moral frameworks to monitor, manage, and control reproductive practices.

Across diverse national contexts, from the Post-Roe United States to the shrinking populations of East Asia, abortion politics and reproductive governance have become closely intertwined with demographic anxieties. These anxieties often reflect concerns about national identity, economic stability, and the future composition of body politics². In many cases, declining fertility is framed as a crisis that threatens not only economic productivity but also cultural continuity and geopolitical strength. As a result, states have adopted a range of policy responses, from financial incentives designed to encourage childbirth to more coercive and restrictive interventions targeting reproductive behavior. Such policies are increasingly justified through narratives of "population replacement" or "national vulnerability," wherein women's reproductive capacities are repositioned as essential tools for nation-building and state survival.³

Iran represents a particularly important case for examining these dynamics. The trajectory of Iranian population policies offers a masterclass in how the state negotiates its relationship with the female body in response to shifting political priorities. Prior to the 1979 Islamic Revolution, especially from the late

¹ Lynn M Morgan and Elizabeth FS Roberts, 'Reproductive Governance in Latin America' (2012) 19(2) *Anthropology & Medicine* 241.

² Ladan Rahbari, 'Reproductive Biopolitics, Demographic Anxieties, and Access to Safe Abortion: National Security and Pronatalism in the "Family Protection and Youthful Population" Law in Iran' (2025) 14(3) *Social Sciences* 188.

³ Faye D Ginsburg and Rayna Rapp (eds), *Conceiving the New World Order: The Global Politics of Reproduction* (University of California Press 1995)

1960s onward, the Pahlavi state implemented population control policies as part of its "White Revolution" modernization agenda. These policies aimed to reduce population growth and promote family planning, drawing on Western developmental models, and emphasizing modernization and economic stability. Initiatives included public education campaigns, the distribution of contraceptives, and the establishment of family planning clinics, all of which contributed to a significant decline in fertility rates during this period.

Following the Islamic Revolution, however, population policies shifted dramatically. The newly established Islamic Republic framed large families as "Soldiers of Islam", linking reproduction to revolutionary strength. In this period, large families were promoted, and reproductive behavior was linked to broader ideological and religious narratives about the role of women and the importance of motherhood. Yet, by the late 1980s, the economic reality of population explosion forced another dramatic U-turn. Iran subsequently implemented one of the most successful and rapid fertility decline programs in global history⁴, sanctioned by religious fatwas and supported by a robust public health infrastructure.

However, in the past decade, declining fertility rates have once again become a source of concern, and Ayatollah Khamenei, Iran's former Supreme Leader, reframed it as a security threat. This culminated in the adoption of the "Family Protection and Youthful Population" in 2021. This law represents a definitive break from previous decades of public health-oriented family planning. It moves reproductive governance into the realm of securitization, introducing restrictions on access to contraception, the criminalization of abortion information, and the removal of state funding for family planning services. This legislative framework seeks to reclaim the state's authority over the reproductive body, but unlike previous eras, it is doing so through the power of digital infrastructure.

These transformations in Iran are not occurring in a vacuum; they are taking place within a broader global shift toward data-driven governance. As the healthcare system worldwide transitions to digital records, the body is being transformed into what Deborah Lupton⁵ calls a "digital data assemblage." In the Global North, this is often driven by "Surveillance Capitalism"⁶, where intimate bodily data is harvested for profit. Digital technologies, including electronic health records, fertility tracking

⁴ Max Roser, 'The Global Decline of the Fertility Rate' *Our World in Data* <https://ourworldindata.org/global-decline-fertility-rate> accessed 8 April 2026

⁵ Deborah Lupton, *Digital Health: Critical and Cross-Disciplinary Perspectives* (Routledge 2018)

⁶ Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (PublicAffairs 2019).

applications, and population databases, are reshaping how reproductive bodies are understood and managed.

The 2025 Meta and Flo health case in the United States serves as a significant moment for this era. In December, the California jury found that Meta had unlawfully collected sensitive reproductive health data from millions of women⁷. This data had been shared with the company without users' knowledge or consent, despite repeated assurances that such information would remain private. This case highlights the extent to which intimate bodily data can be commodified and circulated within digital ecosystems, raising critical questions about privacy, consent, and the governance of reproductive information.

However, in the context of an authoritarian state like Iran, this datafication takes on a more ominous character. Here, the logic of data collection is not profit, but "digital authoritarianism"⁸. Following the 2021 Law, the state launched the National Healthy Pregnancy Registry System (NHPRS) in 2022. This nationwide digital system collects and integrates detailed information about pregnant individuals from the earliest stages of pregnancy, including laboratory test results and ultrasound records. By centralizing laboratory test results, ultrasound records, and pregnancy tracking into a single state-accessible database, the NHPRS system enables what Akbari⁹ describes as "automated control." The state no longer needs to physically police every clinic if it can monitor the "data event" of a pregnancy from its inception. This creates a chilling effect where the fear of being flagged by the system may deter women from seeking healthcare, thereby undermining both public health and individual autonomy.

To understand these developments, this thesis uses Michel Foucault's¹⁰ concept of biopolitics, James Scott's notion of state legibility¹¹, and more recent research on digital authoritarianism and data justice. Foucault viewed modern power as regulating biological life. This thesis argues that reproductive governance in contemporary Iran increasingly operates through digital infrastructures that make

⁷ The Bureau of Investigative Journalism, 'Meta "Eavesdropping" on Flo Exposes How Period Apps Are a Data Goldmine' (3 September 2025) <https://www.thebureauinvestigates.com/stories/2025-09-03/meta-was-caught-eavesdropping-on-a-period-app-could-this-be-the-start-of-a-pushback-against-big-tech> accessed 8 April 2026.

⁸ Azadeh Akbari and David Murakami Wood, 'Towards a Critical Political Economy of Surveillance and Digital Authoritarianism' (2025) 23(1) *Surveillance & Society*.

⁹ Azadeh Akbari, 'The Threat of Automating Control: Surveillance of Women's Clothing in Iran' in Aleš Završnik and Vita Badalič (eds), *Automating Crime Prevention, Surveillance, and Military Operations* (Springer 2021) 183, 190.

¹⁰ Michel Foucault, *The History of Sexuality, Volume 1: An Introduction*, tr Robert Hurley (Pantheon Books 1978) 139.

¹¹ James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (Yale University Press 1998) 2-5

reproductive life visible, traceable, and administratively manageable. Pregnancy is transformed into a datafied reproductive body that can be classified, monitored, and governed across interconnected institutional systems. This thesis describes this transformation as digital reproductive governance, meaning reproductive control is exercised not only through legal restrictions and medical authority, but also through digital architectures of surveillance and datafication.

Furthermore, this study is informed by Technofeminist perspectives¹² and Data Feminism¹³. These frameworks remind us that technology is never neutral; it reflects the power structures of society that produce it. Digital health infrastructures in Iran are "gendered technologies" designed to enforce a specific patriarchal vision of motherhood. This is particularly dangerous for marginalized groups, including ethnic minorities and those in lower socioeconomic brackets, who often rely solely on state-run clinics and cannot afford the "privacy" of the black market or private healthcare.¹⁴

International law addresses reproductive rights primarily within the broader framework of women's health. However, it has often been criticized for being insufficiently attentive to women's specific health needs, particularly in relation to reproductive autonomy. In recent years, reproductive rights have become increasingly justiciable, as courts and international treaty bodies have begun to recognize the profound physical and psychological harm caused by the denial of access to reproductive healthcare.

Despite this growing recognition, there is no single comprehensive international treaty explicitly dedicated to reproductive rights or bodily autonomy. Instead, these rights are protected indirectly through existing human rights instruments. As Sara De Vido¹⁵ argues, reproductive rights are deeply embedded in fundamental human rights, including the rights to dignity, health, equality, and access to information, rather than existing as a separate legal category. In her analysis, De Vido conceptualizes violence against women's health through a bi-dimensional framework. The vertical dimension focuses on state policies and legal frameworks, arguing that laws themselves can constitute forms of violence when they restrict access to reproductive healthcare. This includes restrictive abortion laws, barriers to

¹² Judy Wajcman, *TechnoFeminism* (Polity Press 2004) 56.

¹³ Catherine D'Ignazio and Lauren F Klein, *Data Feminism* (MIT Press 2020) 23.

¹⁴ Ruha Benjamin, *Race after Technology: Abolitionist Tools for the New Jim Code* (Polity Press 2019) 91.

¹⁵ Sara De Vido, *Violence against Women's Health in International Law* (Manchester University Press 2020) 105.

contraception, involuntary sterilization, and forms of obstetric violence, all of which can undermine women's bodily autonomy and integrity.

Within international legal frameworks, several instruments indirectly address reproductive rights. The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)¹⁶, particularly Article 12, establishes a core obligation for states to eliminate discrimination in healthcare, including in relation to pregnancy and reproductive services. Similarly, the International Covenant on Civil and Political Rights (ICCPR)¹⁷ has been interpreted by the Human Rights Committee to address reproductive rights through existing provisions. In particular, the prohibition of torture and cruel, inhuman, or degrading treatment under Article 7, as well as the right to privacy under Article 17, have been invoked in cases where denial of abortion services has resulted in intense physical and psychological suffering.

At the regional level, the Maputo Protocol (Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa)¹⁸ stands out as the only binding legal instrument that explicitly recognizes reproductive rights, including access to medical abortion under specific circumstances. Together, these frameworks illustrate that while reproductive rights are not codified in a single unified treaty, they are increasingly recognized across multiple areas of international human rights law.

Iran has not ratified the CEDAW Convention; however, as a signatory to the ICCPR, Iran has obligations to States to bear not only negative obligations to refrain from interfering with reproductive autonomy but also positive obligations to ensure access to adequate healthcare services¹⁹. This obligation has been neglected through the "Family Protection and Youthful Population," which has restricted access to contraceptives, emergency pills, and abortion/ miscarriage, which can treat women's health. Also, the right to privacy has been systematically violated through the digital infrastructure and monitoring system. While these digital health systems have been under development

¹⁶ Convention on the Elimination of All Forms of Discrimination against Women (adopted 18 December 1979, entered into force 3 September 1981) 1249 UNTS 13.

¹⁷ International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171.

¹⁸ Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (adopted 11 July 2003, entered into force 25 November 2005) CAB/LEG/66.6.

¹⁹ De Vido (n 14)

for over five years, recently a new digital system was introduced for reporting the abortion cases to the judicial system.

In February 2026, the Iranian judiciary announced the launch of a dedicated reporting portal specifically designed for the surveillance of abortion. This system enables and encourages citizens to report suspected cases of abortion directly to the judiciary for criminal investigation and trial. This development represents a calculated effort to institutionalize “lateral surveillance”²⁰, effectively turning the citizen into an extension of the state’s policing apparatus. This digital reporting mechanism serves to tighten the already restricted possibilities for accessing reproductive healthcare and create an environment of pervasive fear. As Akbari²¹ notes in the context of other surveillance technologies in Iran, such systems create an “automated control” that removes the need for physical state presence by internalizing the sense of being watched.

This thesis examines the recent shift in Iran’s population policies, specifically focusing on the digital infrastructures introduced alongside the 2021 law on “Family Protection and Youthful Population.” The primary objective is to investigate how these policies impact women’s reproductive rights and bodily autonomy. The thesis further examines how the datafication of health would treat bodily integrity. This study moves beyond a simple legal critique; it explores how the legal framework, technological architectures, and everyday experiences intersect to form a new paradigm of reproductive governance

In this context, the relationship between the state, the body, and technology is undergoing a fundamental transformation. As Foucault²² argued, the state’s power is most potent when it is “capillary,” reaching into the very grain of individuals and their biological lives.

However, this thesis also acknowledges that power is never absolute. While the state increasingly uses digital technologies to expand reproductive surveillance, they simultaneously create new possibilities for resistance. Rather than viewing technology only as an instrument of authoritarian control, this study examines its dual and ambivalent character. Through the case of Zaagaah, a grassroots feminist accompaniment network, it explores how activists repurpose digital platforms to circulate reproductive

²⁰ Mark Andrejevic. (2002). The Work of Watching One Another: Lateral Surveillance, Risk, and Governance. *Surveillance & Society*, 2(4), 479-497

²¹ Akbari (n 9)

²² Foucault (n 10)

knowledge, provide practical support, and construct alternative infrastructures of care. The interaction between reproductive surveillance and feminist resistance therefore constitutes one of the central themes of this research.

Methodologically, this research combines three interconnected levels of analysis.

1. A legal and policy analysis of the 2021 Law on Family Protection and Youthful Population and the broader pronatalist framework.
2. An examination of the digital infrastructures that operationalize reproductive governance, including the SIB health system, the National Healthy Pregnancy Registry, and abortion reporting mechanisms.
3. An empirical analysis based on an Instagram survey conducted through Zaagaah's public platform together with sustained participant observation accumulated through more than three years of involvement in Zaagaah's feminist accompaniment network.

By integrating legal analysis, digital infrastructure, and lived experience, this thesis demonstrates how reproductive governance is increasingly enacted through datafication while simultaneously generating new forms of feminist resistance and alternative infrastructures of care.

Ultimately, this thesis contributes to the growing research on digital authoritarianism, reproductive governance, and data justice by making three principal contributions. First, it conceptualizes the transformation of reproductive governance in Iran as a form of digital reproductive governance, where reproductive life becomes increasingly governed through interconnected digital infrastructures. Second, drawing on empirical evidence from Zaagaah, it develops the concept of digital reproductive anxiety to explain how anticipated surveillance reshapes healthcare-seeking behavior and reproductive decision-making. Third, it demonstrates how feminist accompaniment networks function as alternative infrastructures of care, illustrating that digital technologies simultaneously enable new forms of surveillance and new possibilities for reproductive autonomy and collective resistance.

Chapter one

Biopolitics Reproductive Governance and Digital Surveillance

1.1 The Emergence of Reproductive Governance

Internationalization of reproduction as a site of governance became a concern only after the end of World War II, driven mainly by fears expressed within Malthusian thought about high fertility rates in countries within the Global South. The establishment of the United Nations Fund for Population Activities (UNFPA) in 1969 was a turning point towards the creation of mechanisms for managing the world's population as an institution. Nonetheless, it was not until the International Conference on Population and Development held in Cairo in 1994 that a paradigm shift was made away from aggregate "population control" and toward the language of "reproductive rights."

As Freedman²³ (1993) points out, one of the goals of the era was to promote the equality of genders and empower women as part of the global development agenda. Yet, as suggested in this thesis, mechanisms for controlling reproduction have remained even in modern times despite the rhetoric of "rights" and "health." Such mechanisms may involve the use of advanced technology to control the bodies whose reproductive rights had been promised in the Cairo consensus.

Thus, "reproductive governance" can be described as mechanisms that use various historical formations of power, such as states, religious authorities, international finance institutions, non-governmental organizations, and social movements, to produce, monitor, and control reproductive and demographic behavior through legislative controls, economic incentives, moral appeals, coercion, and ethics incitements²⁴.

This process involves encouraging and disciplining bodies depending on the changing priorities of the nation's demographic landscape.

Examples of reproductive governance across the world show a clear transition from physical coercion to informational surveillance. In Peru, this transition was from forced sterilization of indigenous women under the Fujimori government to an effort under the Toledo government of making it necessary for women to register their pregnancy immediately upon conception²⁵. In other words, the act

²³ Lynn P. Freedman, 'The Challenges of Fundamentalism' (1993) 43(3) International Journal of Gynecology & Obstetrics 311.

²⁴ Morgan and Roberts (n 1)

²⁵ Morgan and Roberts (n 1)245

of registration became an early form of creating a "continuous chain of surveillance" over pregnant women from conception to birth.

In China, within its infamous "One-Child Policy"²⁶, reproductive governance was realized through a combination of science and security apparatus of the country. Scientists dealing with missile defense used cybernetics and control theory to conceptualize population growth as a biological disaster²⁷. Human bodies were reduced to "data" with the help of mathematical models. This historical reduction of biological life to mathematical abstraction prefigures contemporary processes of bodily datafication. While not all forms of reproductive surveillance constitute a full manifestation of the Code/Body²⁸, they contribute to the production of a coded reproductive body that becomes increasingly legible and governable through digital infrastructures. Hence, the state minimized the human cost of its reproductive policies and paved the way to the digital datafication of the body.

As Ginsburg and Rapp note²⁹; there is no equal application of reproductive governance throughout the population because some pregnancies are encouraged or supported (majorities or elites), whereas others are actively monitored or criminalized (minorities). The term "*stratified reproduction*" is used for this process.

One example is the situation in Iran. Despite being highly pronatalist in nature, the state has occasionally had other ideas concerning marginal populations. This underlying stratification was exposed during controversial state-level policy debates regarding proposals to enforce birth control or sterilization programs for homeless and chronically vulnerable women³⁰. Due to strong criticism from women's rights defenders, the plan was never realized. Nonetheless, it revealed the underlying stratification of reproductive governance where some bodies are valued less than others. This stratification reflects what Aihwa Ong³¹ calls 'graduated sovereignty,' where the state provides

²⁶ Wikipedia, 'One-child policy' (2024) https://en.wikipedia.org/wiki/One-child_policy accessed 11 May 2026.

²⁷ Susan Greenhalgh, *Just One Child: Science and Policy in Deng's China* (University of California Press 2008) 15.

²⁸ Azadeh Akbari, "The Birth of Code/Body," in *Being Human in the Digital World: Interdisciplinary Perspectives*, ed. Beate Roessler and Valerie Steeves (Cambridge: Cambridge University Press, 2025)

²⁹ Faye D. Ginsburg and Rayna Rapp (eds), *Conceiving the New World Order: The Global Politics of Reproduction* (University of California Press 1995)

³⁰ Deutsche Welle (DW), 'Tarh-e dobare-ye mozou-e aghimsazi-ye ekhtiari-ye zanan-e karton-khab' (2017) <https://www.dw.com/fa-ir/a-36967335> accessed 11 May 2026.

³¹ Aihwa Ong, *Flexible Citizenship: The Cultural Logics of Transnationality* (Duke University Press 1999).

healthcare and support to the 'ideal' citizen while subjecting marginalized populations, such as the homeless or ethnic minorities, to more coercive forms of control.

In the twenty-first century, the process of reproductive governance entered a new epoch. We witness an evolution from physical laws of the previous centuries to the digital architecture of the twenty-first. The shift from physical laws to digital architectures is the ultimate attempt to make the "invisible" process of pregnancy legible. At its core, reproductive governance is a project of legibility³². By creating registries and databases, the state seeks to simplify the complex, private reality of reproduction into a set of data points that can be manipulated through policy.

The trajectory of Iran's reproductive policy offers a compelling case study of reproductive governance, wherein the state constantly recalibrates its relationship with the female body to maintain national stability.

In the late Pahlavi era, reproductive governance was articulated through a “modernization” paradigm. Following 1979, Islamic revolution, the state initially took a radical shift toward pronatalism. The newly established Islamic Republic defended the idea of large families as a revolutionary necessity. During this period, the state utilized moral order to frame smaller families as a Western approach designed to dismantle traditional Islamic values.

However, as the state encountered the economic strain of sustaining a rapidly expanding population and failing to provide sufficient jobs, housing, and social security, the governance framework turned once again. In the 1990s, Iran implemented one of the most successful family planning programs in global history, with the slogan “Fewer children, better life”

Today the Iranian state has entered its most recent cycle of governance, returning to an aggressive pronatalist stance regarding an aging population. This cycle reflects James C. Scott’s concept of "high-modernist" statecraft³³, where the government views the population not as a collection of individuals, but as a quantifiable, manipulable resource.

³² Scott (n 11)

³³ Scott (n 11)

By placing the reproductive body within a network, Iran is not only seeking to increase birth rates, it is also attempting to optimize the population as a “data set” to be governed, tracked, and disciplined, marking a significant evolution in the history of reproductive governance.

1.2 Biopolitics and the Governance of Life

In the previous section, we have mapped the historical and legislative mechanisms of reproductive governance. This section explores the underlying logic of state intervention into the biological realm. To understand why modern states seek to rejuvenate their population through both pronatalist law and digital surveillance, we need to turn to the concept of Biopolitics.

Michel Foucault³⁴ articulates in “The History of Sexuality” that the modern state has transformed its exercise of power fundamentally and shifted from the classical “sovereign” right to take life to the biopolitical power to “manage” and optimize life. This “power over life” evolved since the seventeenth century into two basic, interrelated poles: anatomo-politics and bio-politics.

This “biopower” does not function solely through punishment or prohibition, but through the continuous, expert and technical management of the population’s vital processes including birth, fertility, morbidity and health.

Foucault argues that bio-power was an indispensable element in the development of capitalism, as it ensured the controlled insertion of bodies into the machinery of production and adjusted population phenomena to economic processes.

In Iran, the state’s turn toward aggressive pronatalist policy and the subsequent implementation of digital surveillance tools, specifically the National Pregnancy Registration System, represent a quintessential biopolitical project. The idea of regulatory control by Foucault has been evident in the ‘Family Protection and Youthful Population’ law that was enacted in 2021 through the establishment of the “Legal Abortion Commission,” a committee made up of judges and doctors appointed by the government.

³⁴ Foucault (n 10)

This governance of life relies on the creation of what Giorgio Agamben³⁵ terms “bare life,” where the individual’s biological existence becomes a matter of state security. When the state treats pregnancy as a “data event” that must be reported, monitored and optimized for national survival, the reproductive body is effectively stripped of autonomy and repositioned as a biological resource. Thus, biopolitics provides the theoretical lens through which we can understand the digital infrastructure not just as a medical tool, but as a mechanism designed to control the Iranian population.

1.2.1 From Sovereign Control to the "Datafied" Gardener

Foucault’s account of biopolitics conceptualizes the modern state as a “gardener” of the population; a form of power that no longer relies primarily on sovereign violence but instead seeks to manage, cultivate and optimize life. Rather than applying the right to take life, the biopolitical state aims to foster life by regulating birth rates, health, morality, and demographic development.

Foucault’s concept of the Panopticon provides an important starting point for understanding modern forms of surveillance. However, the contemporary systems of governance increasingly operate through databases, digital infrastructures and algorithmic forms of visibility rather than architectural observation alone. Surveillance is no longer limited to institutions such as prisons, schools, or hospitals; instead, it is embedded within networked information systems that continuously collect, process and classify personal data.

In the Iranian context, the National Healthy Pregnancy System can be understood as part of this broader transformation. Rather than relying primarily on disciplinary observation, the system seeks to render the reproductive process legible through mandatory data registration and continuous information flows. Pregnancy becomes not only a biological event but also an administrative and digital category that can be recorded, monitored, and incorporated into broader demographic strategies.

This shift reflects what Scott³⁶ describes as the state’s drive for legibility. By transforming complex reproductive experience into standardized categories and measurable indicators, the state creates forms of knowledge that facilitate intervention and governance. The objective is not merely to observe

³⁵ Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life* (Stanford University Press 1998) 8.

³⁶ Scott (n 11) 87

individual bodies but to construct a population that can be measured, analyzed and managed through digital infrastructures.

Consequently, contemporary reproductive governance in Iran is better understood not as a classical panoptic system but as a form of algorithmic biopolitics in which reproductive life becomes visible through processes of datafication, classification, and administrative tracking.

1.2.2 The State's "High-Modernist" Imaginary

The theoretical construct of high modernism presented by James C. Scott gives a very interesting perspective on Iran's obsession with such digital technologies. According to Scott, high modernism is a grand and ambitious state project aimed at imposing an ordered structure on all aspects of human existence. Although Scott states that high modernism is not inherently dangerous, he notes that this phenomenon becomes catastrophic when it involves excessive administration and the efforts to make nature and society legible for the state. In the case of Iran, state use of the National Pregnancy Registration System³⁷ and by defining the 'population crisis' through the lens of digital analytics, policymakers attempt to collapse the complex, private, and lived reality of reproductive life into a set of standardized data points, thereby making the female body a resource that is fully legible, and thus fully governable, from the top down.

Policymakers attempt to simplify the messy, private reality of reproductive life into a set of manageable variables by defining the population problem through the lens of data analytics. This simplification is not without a price. A state that conceives of a pregnancy as a "data event" to be managed to meet demographic quotas will inevitably ignore the complex lived realities of the women involved. The state thus "de-contextualizes" the individual body, rendering it a mere resource for national rejuvenation. The making of the body "legible" to the state is a condition for all biopolitical control. The digitization of a woman's reproductive health creates a "governable space."

1.2.3 Biopolitics, Bare Life, and Marginalization

We must also face the harsher side of this biopolitical management through the lens of Giorgio Agamben³⁸. Agamben expands Foucault by arguing that biopolitics inherently creates a state of

³⁷ Ministry of Health and Medical Education (MOHME), 'Population and Family Health System Portal' <https://population.behdasht.gov.ir/Identity/Account/Login> accessed 11 May 2026.

³⁸ Agamben (n 35)

exception where certain individuals can be reduced to bare life. Giorgio Agamben defines bare life (*nuda vita*) not as simple biological existence, but as a specific political status where life is included in the legal order only through its exclusion

This is vital to understanding the Iranian state's hierarchical application of reproductive governance. When we consider the state's documented discourse regarding the sterilization of the marginalized (as discussed in Section 1.1), we see the biopolitical state operating at its most extreme. Some bodies are deemed "productive" and "valuable" to the national project in the calculus of the state, and others, the homeless, the poor, the marginalized, are deemed "biologically dangerous" or "expendable." This is the dark side of biopolitical optimization: It is not only the "cultivation" of the desired, but systematic "pruning" or exclusion of the undesired. The digitization of health records allows the state to identify, categorize, and perhaps even single out these marginalized groups with a precision that has never been achieved before.

1.2.4 The Mutation of Surveillance: From Self-Tracking to Lateral Policing

Contemporary reproductive governance extends beyond disciplinary surveillance and increasingly operates through distributed forms of data collection, reporting, and citizen participation. Scholars like Nikolas Rose³⁹ argues that the twenty-first century "politics of life itself" operates predominantly through advanced liberalism, where citizens are encouraged to engage in self-surveillance and commercial self-tracking to optimize their own health.

However, the Iranian landscape reveals a far more coercive, securitized mutation. The Iranian state expands its reach by engineering an infrastructure of lateral surveillance, rather than relying on individualized self-optimization. This is clearly manifested in the state-sanctioned reporting portals introduced in February 2026, which actively incentivize the citizenry to monitor and report suspected unregistered abortions or reproductive 'deviations' from the state's demographic vision, a practice Andrejevic⁴⁰ originally theorized as "lateral surveillance".

This pervasive datafication has generated a profound chilling effect. Women in Iran are aware that their intimate medical data no longer belongs to them but functions as a trackable component of a state-

³⁹ Nikolas Rose, *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century* (Princeton University Press 2007) 132

⁴⁰ Andrejevic (n 40)

owned biopolitical dossier. Consequently, women may encourage avoidance of formal healthcare settings to avoid being tracked. This avoidance constitutes a dangerous public health crisis, resulting in fragmented care and a rise in hazardous underground medical practices. It represents a deeply rational, defensive response to a hostile technological apparatus.

Ultimately, this chilling effect is a direct, structural outcome of a state that prioritizes its own demographic survival over the bodily autonomy of its citizens. In the digital age, biopolitics in Iran has evolved far beyond Foucault's classical management of life. It has mutated into the digital policing and securitization of the nation's biological future, where the trajectory of every pregnancy is captured, assessed, and disciplined by the state's algorithmic gaze.

1.3 Feminist Theories of Bodily Autonomy and Reproductive Justice

The history of feminist struggle for bodily autonomy has been defined by a fundamental tension between the demand "reproductive rights" and the broader, more radical framework of "reproductive justice." For decades, mainstream feminist movements, largely situated in liberal Western legal contexts, focused on the achievement of reproductive rights, defined primarily as an individual's legal access to medical services such as contraception and abortion. This rights-based approach was grounded in the principle of bodily integrity, which holds that a woman's autonomy is protected when the state recognizes her legal right to make private choices free from government interference. However, as the 1994 Cairo Conference(ICPD)⁴¹ pointed out, even if the formalization of reproductive rights represented a milestone, this framework often did not translate into the lived realities of women facing intersectional oppression.

In liberal rights-based discourse, there is frequently an assumption of a 'sovereign individual', a person who enjoys autonomy and acts privately, regardless of the state's influence on this process through legislation, economy, and technology. Thus, the main point of discussion in this chapter is the shift from physical barriers, such as laws, to the technological infrastructure of the state, which requires an advanced conception of autonomy. The understanding interrogates how technology, datafication, and state power intersect to redraw the boundaries of the female body. In contemporary Iran, the state's use of pronatalist measures through the implementation of digital health technologies demonstrates the

⁴¹ United Nations Population Fund (UNFPA), 'International Conference on Population and Development' <https://www.unfpa.org/icpd> accessed 11 May 2026.

insufficiency of a rights-based defense of reproductive rights. If every biological function of the body is being monitored by the state in the National Pregnancy Registration System, then the private choice is impossible.

1.3.1 The Failure of Liberal Autonomy in the Digital Age

The traditional legal framework for bodily autonomy is grounded in liberal political philosophy that prizes the “sovereign individual” as a private agent, whose body is a sanctuary free from state interference. This framework relies on a binary understanding of public versus private life, meaning that if the state does not physically force medical procedures or criminalize private reproductive decisions, it is assumed that individuals are free. According to the international human rights language, the main guarantees of reproductive health are associated with the norms of bodily autonomy, confidentiality, and informed consent⁴². In terms of this normative framework, the presumption of autonomy lies in the fact that the government adopts a 'hands-off' policy towards matters concerning medical treatment.⁴³

However, this liberal model of autonomy is deeply ill-equipped to confront the realities of digital authoritarianism and the datafied governance of the twenty-first century.

In the context of Iran, liberal autonomy has visibly failed in the state’s transition from physical coercion to algorithmic oversight via the NHPRS, and the liberal obsession with "choice" becomes insufficient. Digitalization of the reproductive process from the moment of conception means that the state does not need to physically enter the private sphere; it simply mandates that the private sphere be logged, categorized, and uploaded to a state-controlled network. A woman also cannot simply "choose" freely when her medical history, pregnancy status, and prenatal data are being systematically harvested and integrated into a centralized state dossier.

Thus, privacy becomes increasingly difficult to sustain. Liberal autonomy asks:” Is the state stopping me from making this choice?” Yet in an era of digital governance, a more pressing question concerns how reproductive trajectories are rendered visible, classified, and monitored through data infrastructures before individuals have fully navigated their own decisions. As scholars such as

⁴² Rebecca J. Cook, Bernard M. Dickens and Mahmoud F. Fathalla, *Reproductive Health and Human Rights: Integrating Medicine, Ethics, and Law* (Oxford University Press 2014) 154.

⁴³ De Vido (n 14)

Lupton⁴⁴ and Benjamin⁴⁵ have argued, the contemporary system of governance increasingly relies on the collection, categorization, and predictive use of personal data to shape forms of knowledge and intervention.

When the registry system requires the registration of pregnancy, it effectively eliminates the private period of reflection upon which liberal models of autonomous decision-making depend. The individual is no longer conceived primarily as an autonomous agent operating within a private sphere, but is increasingly conceived as a data subject embedded within a state-managed demographic infrastructure.

As Jennifer Nedelsky⁴⁶ argues in her theory of Relational Autonomy, our capacity for choice is entirely dependent on our social and institutional relationships. In the Iranian healthcare landscape, the state has reconfigured these relationships. By mandating that medical professionals and centers act as "data-reporters" for the registry, the state shatters the trust between doctors and patients, which international human rights law⁴⁷ essential to proper health care. Thus, the legal focus on 'being left alone' by the state in the context of health care under the legal framework is a pipe dream in the digital age, as the state is now embedded in the software regulating maternal health.

1.3.2 From "Choice" to Reproductive Justice

To address the failures of the liberal model, this thesis adopts the framework of Reproductive Justice (RJ). RJ is an idea that was introduced by the SisterSong collective and further elaborated upon by scholars such as Loretta Ross⁴⁸. This framework moves beyond the "pro-choice" versus "pro-life" dichotomy. It recognizes that bodily autonomy is not merely a legal status to be granted, but a socio-political condition to be secured. As argued by Loretta Ross, reproductive justice comprises three main elements: the right not to have a child, the right to have a child, and the right to parent in safe, healthy, and sustainable environments. This framework acknowledges that the ability to make reproductive decisions is linked to one's access to power, resources, and freedom from state surveillance.

This framework is essential for analyzing the Iranian state's 2021 "Family Protection and Youthful Population" law. When we view it through the lens of RJ, the National Pregnancy Registration System

⁴⁴ Lupton (n 5)

⁴⁵ Benjamin (n 14)

⁴⁶ Jennifer Nedelsky, *Law's Relations: A Relational Theory of Self, Autonomy, and Law* (Oxford University Press 2011) 19.

⁴⁷ Rebecca J Cook, Bernard M Dickens and Mahmoud F Fathalla, *Reproductive Health and Human Rights: Integrating Medicine, Ethics, and Law* (Oxford University Press 2014).

⁴⁸ Loretta J. Ross and Rickie Solinger, *Reproductive Justice: An Introduction* (University of California Press 2017) 9.

(NPRS) is exposed not as a neutral medical tool, but as a mechanism that systematically undermines all three pillars of reproductive justice. Mandating the registration of pregnancy at the moment of conception allows the state to effectively claim jurisdiction over the body before the individual has had the opportunity to deliberate on her own reproductive future.

Furthermore, the RJ framework explains the intersectional reality of this surveillance. The NHPRS does not impose uniform pressure but rather applies its disciplinary force most intensely upon those already marginalized by state policies. Under the lens of Reproductive Justice, the issue is not simply whether a woman is permitted to access a medical procedure, but it is about the deep imbalance in power between the individual and the digital state. When the state possesses the capacity to track the biological status of the population, it transforms reproductive autonomy into managed, state-regulated resources. Thus, Reproductive Justice urges us to look beyond the choice of the individual and investigate the datafield environment, that renders reproductive self-determination increasingly difficult, surveilled, and dangerous.

1.3.3 The Violence of "Datafied" Care

The integration of the National Pregnancy Registration System (NPRS) into the medical encounter fundamentally changes the ethics of care. The clinical setting is viewed as a safe space that is governed by the principle of medical confidentiality and the trust of the patient-provider relationship. However, under Iran's pronatalist policy, the clinical encounter is systematically transformed into a site of state-mandated data extraction. Even when medical professionals ideologically oppose this algorithmic surveillance, they are legally coerced into compliance under threat of severe professional penalties.

As Dorothy Roberts⁴⁹ has argued in her critique of reproductive surveillance that when the state uses the medical system to monitor marginalized bodies, healthcare is no longer an act of healing but becomes an instrument of state violence. This must be understood as a form of "biopolitical violence"; a condition wherein the state's power to manage and foster life, which Foucault⁵⁰ terms biopower, becomes coercive and destructive when applied to the "species body" of a population.

⁴⁹ Dorothy E. Roberts, *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (Pantheon Books 1997) 153.

⁵⁰ Foucault (n 10)

Klein's⁵¹ framework of Data Feminism, asserts that data is never objective or politically neutral. When the state records "healthy pregnancy" metrics, it is prioritizing a demographic outcome over the health, mental well-being, or autonomy of the individual woman. The medical system thus stops serving the patient and starts serving the population. Consequently, women lose their trust in the medical system where they are no longer perceived as human subjects requiring care, but as quantifiable variables in the national fertility equation.

1.3.4 Relationality as Resistance: Defending the Body

If the National Pregnancy Registration System uses data to fragment and control women, the pathways for resistance must be located in the re-establishment of the very conditions the system seeks to destroy: trust, radical confidentiality, and collective knowledge production. Drawing on Jennifer Nedelsky's theory⁵² *Relational Autonomy*, we can argue that the primary site of resistance is the "relationship." If the state's digital architecture is designed to monitor every step of pregnancy and turn doctors and patients into "data reporters", then preserving relationships of trust, whether between patients and healthcare providers or within feminist accompaniment networks, becomes a form of resistance against digital reproductive governance.

This resistance is deeply rooted in the theoretical tradition of TechnoFeminism. As Judy Wajcman,⁵³ argues, technology must not be viewed as a phenomenon that is autonomous and imposes certain changes on social reality. On the contrary, technology is socially constructed and can be structurally reconstructed.

This relational understanding of resistance is further illuminated by Jessie Daniels' account of cyberfeminism⁵⁴. Daniels argues that digital spaces have long enabled women, particularly those experiencing intersectional forms of oppression, to create counter-publics, circulate alternative knowledge, and build networks of mutual support beyond dominant institutions. In the Iranian context, where reproductive information is increasingly criminalized and closely monitored, these digital networks become important spaces for sharing reproductive knowledge, preserving confidentiality, and sustaining collective forms of care. Rather than functioning solely as channels of communication, they

⁵¹ D'Ignazio and Klein (n 13)

⁵² Nedelsky (n 47)

⁵³ Wajcman (n 12)

⁵⁴ Jessie Daniels, 'Rethinking Cyberfeminism(s): Race, Gender, and Embodiment in the Digital Ontology' (2009) 37(1/2) *Women's Studies Quarterly* 101.

provide the relational conditions through which women can continue to exercise reproductive autonomy despite expanding state surveillance. This section establishes that resistance is not just an individual's refusal to use a system; it is a relational practice. It is found in the networks of women who share information on how to bypass registration and restrictions on access to abortion, in the providers who prioritize the patient's privacy over state reporting mandates, and in the digital tactics used to shape resistance.

By framing resistance as a relational practice, this thesis challenges the assumption that the state's efforts to render reproductive life fully legible are ever complete. Instead, it positions the body as a site of ongoing contestation, negotiation, and refusal. As we move into the empirical chapters of this thesis, we will explore how Iranian women, and Iranian feminists in particular, actively rebuild the relational bonds that the state's digital architecture seeks to sever. Such practices are often precarious and uneven, shaped by risk, access, and state repression.

1.4 Digital Surveillance and the Datafication of Health

In the previous sections, the biopolitical and feminist foundations for understanding reproductive governance were established. This section interrogates the specific, technical mechanics of digital surveillance and automated data extraction. The transformation of intimate health information into standardized digital data is never a politically neutral or merely administrative process. Rather, it functions as a strong mechanism of state power that radically reconfigures the structural relationship between the individual, the medical apparatus, and the sovereign state.

As Deborah Lupton⁵⁵ argues, the contemporary rise of digital health regimes constructs an ecosystem of continuous tracking, wherein the organic biological body is perpetually monitored, disembodied into discrete datasets, and subjected to automated, algorithmic oversight.

In the context of Iran, this datafication framework serves a dual purpose: while seemingly presented under the technocratic form of administrative efficiency and public health optimization, it primarily operates as a novel mode of authoritarian governance. Crucially, this system challenges contemporary digital health sociology. Scholars such as Tamar Sharon⁵⁶ often conceptualize digital health through the

⁵⁵ Lupton (n 5)

⁵⁶ Tamar Sharon, 'Self-Tracking for Health and the Quantified Self: Re-articulating Autonomy, Solidarity, and Authenticity in an Age of Personalized Healthcare' (2017) 30(1) *Philosophy & Technology* 96.

lens of the Western 'self-tracking' imperative, wherein individuals voluntarily deploy consumer health applications to quantify and optimize their own vital metrics. By contrast, under an authoritarian surveillance regime, this voluntary self tracking mutates into what Shoshana Zuboff⁵⁷ terms 'instrumentarian power', a form of governance that does not only records behavior but actively extract, predicts, and modifies it through automated, mandatory data flows. Although Zuboff developed the concept in relation to corporate platforms, its emphasis on behavioral monitoring and prediction provides useful insights into state-led forms of data extraction.

This infrastructural transformation must be critically analyzed through the lens of algorithmic power and institutional bias. Ruha Benjamin's⁵⁸ conceptualization of the "New Jim Code" is deeply instructive here. She demonstrates that algorithms and databases are not objective, value-free instruments, but are explicitly encoded with the ideological values, anxieties, and biases of the dominant institutions that engineer them. Safiya Noble's work⁵⁹ further reinforces this critique, by demonstrating that software architectures can automate systemic discrimination.

Consequently, Linnet Taylor's⁶⁰ analytical framework of "data justice" provides the final critical layer for this diagnosis: if data visibility is a manifestation of structural power, then the current Iranian digital health complex represents a profound data injustice. The state-controlled network does not merely process clinical metrics, but it actively strips women of their data sovereignty, systematically denying them control over personal data or the ability to opt out of the regime's macro-demographic project.

In sum, the datafication of reproductive health in Iran signals a major, technocratic mutation in authoritarian statecraft. Drawing upon the foundational literature on digital repression⁶¹ and automated surveillance⁶², it is evident that the creation of the National Pregnancy Registration System aligns with a global trend toward the implementation of digital policing and algorithmic governance. Rather than constituting a complete Code/Body configuration, the system primarily produces a coded reproductive

⁵⁷ Zuboff (n 6)

⁵⁸ Benjamin (n 14)

⁵⁹ Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (NYU Press 2018).

⁶⁰ Linnet Taylor, 'What is data justice? The case for connecting digital rights and freedoms globally' (2017) 4(2) *Big Data & Society* 5.

⁶¹ Steven Feldstein, *The Rise of Digital Repression: How Technology Is Reshaping Power, Politics, and Resistance* (Oxford University Press 2021).

⁶² Akbari (n 9)

body whose reproductive trajectory is translated into administrative and digital categories. By transforming the lived realities of reproduction into what Lupton⁶³ describes as "data selves," the Iranian state embeds demographic priorities directly into the digital infrastructures of maternal healthcare.

Ultimately, the construction of the Iranian reproductive body as an extracted data-subject signifies an extreme and radical manifestation of data injustice. Through this technological apparatus, the state places its geopolitical and demographic anxieties above the physical freedom, privacy, and bodily autonomy of its citizens. The expansion of this infrastructure marks a historical shift from a biopolitics centred on physical intervention toward an algorithmic biopolitics of the data subject. This paradigm provides the conceptual foundation for the empirical analyses developed in the following chapters.

1.5 Analytical Framework: The Datafied Reproductive Body

This chapter has developed a multi-layered analytical framework for understanding contemporary reproductive governance in Iran. By bridging Foucault's biopolitics with contemporary critiques of digital surveillance, this thesis argues that the Iranian state's intervention into reproductive life is not a single policy shift, but a systemic restructuring of state power.

The analytical framework developed here is built upon three core pillars:

- **The Biopolitical Construction of the Population:** Drawing on Foucault and Scott, we have argued that the Iranian state does not see population as a group of autonomous individuals but as a "high-modernist" resource to be cultivated. The state's focus on demographic targets transforms reproduction into a matter of national security.
- **The Feminist Critique of Relational Autonomy:** Drawing on Nedelsky and the reproductive justice tradition, this thesis argues that reproductive choice is not an individual act but a socially and institutionally mediated capability. The state actively shapes these relationships through legal, medical, and digital infrastructures.
- **Digital Legibility and Algorithmic Governance:** Drawing on Scott, Akbari, Data Feminism, Benjamin, Lupton and Zuboff, this thesis argues that digital infrastructures such as SIB and the National Pregnancy Registration System transform reproductive life into a governable data

⁶³ Deborah Lupton, *The Quantified Self: A Sociology of Self-Tracking* (Polity Press 2016)

object. Through processes of registration, classification, and algorithmic monitoring, the reproductive body becomes increasingly legible to the state.

This framework argues that reproductive governance in Iran operates at the intersection of biopolitics, feminist critique, and digital governance, where reproductive life is progressively transformed into a legible and governable data object. Together, these three analytical pillars provide the conceptual framework for examining how digital surveillance restructures the conditions under which reproductive autonomy is exercised in contemporary Iran.

With the establishment of this theoretical framework, the following chapter will move from the abstract to the concrete and shift from the logic of the system to legal and digital infrastructures.



Chapter 2

Legal and Digital Architecture of Reproductive Surveillance in Iran: SIB and the Reproductive Registry

Introduction

In chapter 1, I established the theoretical and biopolitical framework to understand the state's willingness for reproductive control. This chapter examines the legislative architecture that enables such control. In Iran, the governance of reproduction has transitioned from ideological language to algorithmic practice. In 2022, following the passage of the "Family Protection and Youthful Population Law" in parliament, the state digitized the national health infrastructure and constructed a surveillance system. The system that makes the reproductive body legible, trackable, and ultimately governable.

This chapter includes four stages. First, it analyzes the shift towards pronatalist policy, which is rooted in national demographic anxiety. Second, it deconstructs the "Family Protection and Youthful Population Law"⁶⁴, which positions reproductive life as a matter of national security. Third, it provides a technical and critical analysis of the digital infrastructure: SIB, as the main repository and the Registry of Pregnancy. Finally, it integrates expert testimony to reveal the functional opacity and the real-world risks inherent in Iran's surveillance architecture. It argues that this infrastructure represents a definitive turn toward digital authoritarianism.

2.1 Demographic Policy Transformation in Iran

Population policies in Iran have undergone various transformations over the past seven decades. The formal population institutionalization control began in 1951 and was later pursued with greater vigor under Mohamad Reza Pahlavi's White Revolution as a foundation of state-led modernization.⁶⁵ During this period, the National Family Planning Bill was passed, and population control programs were integrated into the country's development plans. This shift facilitated public education on contraceptive methods, systematic efforts to reduce maternal and infant mortality rates, and the widespread introduction of contraceptive pills and intrauterine devices (IUDs).

The famous slogan "Fewer Children, Better Life" emerged during this era, alongside institutional efforts to incorporate family planning modules into university curricula. However, following the 1979

⁶⁴ Islamic Consultative Assembly (Majles-e Shorā-ye Eslāmi), *Law on Family Protection and Youthful Population* (Qanun-e Hemayat az Khanevadeh va Javani-ye Jamiat), adopted November 1, 2021, accessed June 8, 2026, <https://qavanin.ir/>

⁶⁵ Karimi, Abdolali. "Sir-e Tahavvol-e Kontrol-e Jamiat dar Iran" [The Evolution of Population Control in Iran], *Siasat-e Kalan* [Macro Policy], vol. 3, no. 3 (Spring 2014): 89–104.

Islamic Revolution, the family planning program was suspended.⁶⁶ Sattareh Farman Farmaian,⁶⁷ widely recognized as the pioneer of modern social work in Iran and a key architect of the original family planning legislation, was arrested, put on trial, and narrowly escaped execution. The revolutionary court charged her with distributing contraceptives to women and teaching birth control in her classes, practices that the new authorities framed as a Western imperialist conspiracy designed to demographically weaken the nation.

In her memoir, *Daughter of Persia*,⁶⁸ Sattareh Farman Farmaian describes her trial, noting that “the seventh charge in the long list of accusations was the responsibility for the deaths of five thousand infants due to the prescription of family planning and contraceptive pills.” During her interrogation, the tribunal prosecutor declared:

“Your students have said that one of the subjects at your school was how to prevent pregnancy, and every student was forced to complete an internship for one semester in one of the clinics you established. They have written that in the family planning centers, you gave women pills for free that prevented their pregnancy. The students have estimated that in this way, over the course of a year, you prevented the pregnancy of at least five thousand women who visited the centers. Since you were the pioneer and promoter of such a method in Iran, you are responsible for preventing the birth of five thousand infants; had they been born, they could now be among the companions and soldiers of the Imam and fight for the progress of the Revolution.”⁶⁹

Consequent to the formal suspension of family planning and control policies, the post-revolutionary state viewed any effort to reduce the population as a Western policy designed to impede the growth of “potential martyrs” and soldiers for the nascent regime. This ideological transformation, compounded by the intense pronatalist rhetoric during the eight-year Iran-Iraq War (1980–1988), led to a massive

⁶⁶ Karimi, “Sir-e Tahavvol-e Kontrol-e Jamiat dar Iran”.

⁶⁷ Parviz Niknam, “Sattareh Farman Farmaian, Payeh-gozar-e Madadkari-ye Ejtemaei dar Iran” [Sattareh Farman Farmaian, Founder of Social Work in Iran], *Aasoo*, January 23, 2023, accessed June 8, 2026, <https://www.aasoo.org/fa/articles/4186>

⁶⁸ Sattareh Farman Farmaian, *Dokhtari az Iran* [Daughter of Persia], trans. Maryam A'lai (Tehran: Nashr-e Karang, 1383 [2004]).

⁶⁹ Farman Farmaian (n 70)

population explosion. By 1986, the national census revealed a staggering annual population growth rate of 3.9%, positioning Iran among the highest-growth rates in the world at the time.⁷⁰

By the early 1990s (1370s SH), however, the administration of Ali Akbar Hashemi Rafsanjani⁷¹ confronted with severe post-war economic stagnation and intense strain on national resources distribution. This crisis compelled the government to adopt a population reduction policy. Paradoxically, the state resurrected the exact pre-revolutionary slogan it had previously criminalized: "Fewer Children, Better Life."

Under the first development plan, the government aimed to reduce the total fertility rate from approximately 6.5 children per woman to 4 children per woman by 2011 (1390 SH), a decline that was expected to occur over two decades. However, Iran achieved this target within just four years.⁷² Population control policies continued throughout the following decades, contributing to a decline in the annual population growth rate from nearly 4 percent in the mid-1980s to 1.75 percent by 2006 (1385 SH). By 2020, the fertility rate had fallen to 1.7 children per woman, significantly below the replacement-level fertility threshold of 2.1.⁷³

This rapid demographic decline generated growing state concerns about an impending "demographic crisis," characterized by population aging and a shrinking workforce. Official projections warned that Iran's population growth rate could become negative by 2046 (1425 SH), with more than 30 percent of the population classified as elderly.⁷⁴ The political shift away from population control began in 2010, one year after the suppression of the Green Movement, when President Mahmoud Ahmadinejad⁷⁵

⁷⁰ Mahdi Teymouri, "Tahavvolat-e Jamiat va Nerakh-e Baravari dar Keshvar dar Daheh-ye Akhir va Pish-e Ru" [Population Changes and Fertility Rates in Iran in Recent Decades and Future Prospects], *Iran Newspaper*, no. 7484, August 1, 2020, accessed June 8, 2026, <https://old.irannewspaper.ir/newspaper/item/543854>

⁷¹ "Hashemi Rafsanjani," *Encyclopaedia Britannica*, accessed June 8, 2026, <https://www.britannica.com/biography/Hashemi-Rafsanjani>

⁷² "Qanun-e Hemayat az Khanevadeh va Javani-ye Jamiat: Che Taghyirati dar Siasat-haye Jamiati-ye Iran Ijad Mikonad?" [The Law on Family Protection and Youthful Population: What Changes Does It Bring to Iran's Population Policies?], *BBC News Persian*, October 26, 2021, accessed June 8, 2026, <https://www.bbc.com/persian/59033761>

⁷³ Hannah Ritchie, "The Global Decline of the Fertility Rate," *Our World in Data*, June 17, 2024, accessed June 8, 2026, <https://ourworldindata.org/global-decline-fertility-rate>

⁷⁴ "Iran's Population Growth Rate Plunges," *Tehran Times*, May 28, 2017, accessed June 8, 2026, <https://www.tehrantimes.com/news/514137/Iran-s-population-growth-rate-plunges>

⁷⁵ "Mahmoud Ahmadinejad," *Encyclopaedia Britannica*, accessed June 8, 2026, <https://www.britannica.com/biography/Mahmoud-Ahmadinejad>

publicly rejected the long-standing “two-child” policy as a misguided Western approach and declared that Iran had the capacity to sustain a population of 150 million.⁷⁶

The definitive ideological realignment was finalized in October 2012, when the Supreme Leader, Ali Khamenei, explicitly declared the population control policies of the 1990s and 2000s to be a mistake.⁷⁷ Reiterating the 150 million population target, Khamenei issued a 14-point directive emphasizing the rejuvenation of the national demographic profile and the eradication of socio-legal barriers to marriage. The Supreme Leader subsequently securitized the fertility rate, addressing it in his speeches more than fifty times over the following decade.⁷⁸

Eight years after the Supreme Leader’s initial directive, the *Law on Family Protection and Youthful Population*⁷⁹ was passed by the Iranian Parliament. The legislation was approved by the Guardian Council within just seventeen days, reflecting the state’s sense of demographic urgency and marking one of the fastest legislative approvals related to women’s reproductive rights in the history of the Islamic Republic. The law sought to mobilize all government institutions in support of population growth through a range of incentives and policy interventions. Crucially, however, it also laid the foundation for a new infrastructure of reproductive surveillance. Article 54 required the Ministry of Health to establish a centralized digital system for the registration and monitoring of pregnancies and childbirth outcomes, effectively transforming health infrastructures originally developed for public healthcare administration into instruments of demographic governance.

2.2 Legal Analysis of the Youthful Population Law (2021): From Incentives to Biopolitical Repression

In November 2012, nine years after Ali Khamenei declared previous population control policies a “mistake” and the Ministry of Health announced the defunding of family planning, the “Youthful Population and Family Protection” Law was officially ratified. While the law introduced certain

⁷⁶ “Ahmadinejad: Iran Daraye Zarfiyat baraye 150 Million Jamiat Ast” [Ahmadinejad: Iran Has the Capacity for a Population of 150 Million], *BBC News Persian*, April 29, 2010, accessed June 8, 2026, https://www.bbc.com/persian/iran/2010/04/100429_138_iran_population_ahmadinejad

⁷⁷ “Ayatollah Khamenei: Man Ham dar Khataye Kontrol-e Jamiat Sahim Hastam” [Ayatollah Khamenei: I Too Share Responsibility for the Mistake of Population Control], *BBC News Persian*, October 10, 2012, accessed June 8, 2026, https://www.bbc.com/persian/iran/2012/10/121010_123_khamenei_iran_population_policies

⁷⁸ “Eblagh-e Siasat-ha-ye Jamiat az Suy-e Maqam-e Moazzam-e Rahbari” [Notification of the General Population Policies by the Supreme Leader], *Donya-e Eqtesad*, May 21, 2014, accessed June 8, 2026, <https://donya-e-eqtesad.com/bakhsh-khabar-64/803648-eblagh-siasat-haye-jamiat-az-suye-moqam-moazzam-rahbari>.

⁷⁹ *Law on Family Protection and Youthful Population*.

incentives such as early retirement, free infertility treatment, and subsidies for mothers with more than three children, it simultaneously established a series of punitive measures and prohibitions that primarily target the female body.

Beyond its direct interventions into reproductive healthcare, the law prohibits the promotion of “two-child families” and “single living” across commercial advertising, social media platforms, and public spaces. In doing so, it extends state regulation beyond reproductive practices themselves and into the realm of cultural representation, seeking to reshape the normative landscape of family formation, marriage, and reproduction in contemporary Iran.

2.2.1 The Erasure of Preventive Services and Marginalization (Article 51)

Article 51 of the law⁸⁰ prohibits the free or subsidized distribution of contraceptives and restricts the implementation of contraceptive procedures (such as IUD insertion) or the promotion of their use within the healthcare network affiliated with medical universities. The effects of this provision are likely to be felt most by low-income and marginalized populations. In many rural areas and smaller towns across Iran, access to contraception has historically been managed through publicly funded family planning services and the free distribution of contraceptives methods through the primary healthcare system. With the removal of these services, economically disadvantaged families significantly lose access to birth control, increasing their vulnerability to unintended pregnancies. As a result, the burden of the state's pronatalist policies falls disproportionately on those with the fewest financial resources to access alternative forms of reproductive healthcare.

The withdrawal of these services raises significant concerns from the perspective of reproductive justice. By limiting access to affordable contraceptive resources, the state disproportionately affects lower-income families who are least able to obtain alternative forms of reproductive healthcare. In this sense, economic inequality becomes embedded within reproductive governance and it shapes who can effectively exercise reproductive choice. As Dorothy Roberts⁸¹ argues, the regulation of marginalized populations often operates not only through direct intervention but also through the unequal distribution of care and resources. When access to healthcare is restricted in ways that

⁸⁰ *Law on Family Protection and Youthful Population.*

⁸¹ Roberts (n 50)

disproportionately burden already vulnerable populations, healthcare institutions risk becoming mechanisms of social control rather than solely sites of care and support.

2.2.2 Prohibitions on Sterilization and Pharmaceutical Control (Article 52)

Article 52 prohibits permanent sterilization procedures for both men and women. It also bans contraceptive interventions that are considered difficult to reverse, such as tubal ligation. During Iran's previous period of population control, vasectomy services were widely available and provided free of charge through the public healthcare system. The prohibition of these procedures significantly restricts access to long-term contraceptive options for individuals who do not wish to have children. In practice, women seeking such services in private clinics are often informed that these procedures are no longer available or are subject to strict legal restrictions.

Furthermore, a provision within Article 52 requires that contraceptive medications be sold only with a physician's prescription. Previously, these were over-the-counter items. This restriction may create particular barriers for individuals in non-marital relationships, for whom seeking reproductive healthcare can carry social stigma. Consequently, access to effective contraception may become more difficult for those already facing social and legal vulnerabilities, increasing their susceptibility to unintended pregnancies.

This legal shift can be understood through the lens of rational autonomy. As Jennifer Nedelsky⁸² argues, autonomy is not exercised in isolation but is shaped by the quality of social and institutional relationships that enable individuals to make meaningful choices. By requiring prescriptions for contraceptive access, the state inserts itself more directly into the relationship between healthcare providers and patients, transforming access to reproductive healthcare into a regulated and supervised process. This dynamic can be particularly consequential for women in extra-marital relationships, who may already face significant social stigma and barriers to seeking reproductive healthcare. As a result, access to contraception becomes mediated not only by individual preference but also by institutional constraints and broader relations of power.

⁸² Nedelsky (n 47)

2.2.3 Digital Authoritarianism and the Policing of Knowledge (Articles 56–60)

Articles 56 through 60 establish a range of penalties for individuals who participate in, facilitate, or provide abortion-related services.⁸³ These sanctions include substantial financial penalties (diya), lengthy prison sentences, and the permanent revocation of medical licenses for healthcare professionals.

Particularly significant is Article 59, which requires the Ministry of Intelligence and law enforcement agencies to identify websites, online platforms, and social media accounts that provide information about abortion or facilitate access to abortion-related services. Under the law, the dissemination of such information may be interpreted as encouraging or facilitating abortion, exposing individuals involved in these activities to severe criminal penalties.

This provision extends state regulation beyond medical practice and into the circulation of knowledge itself. As discussed in Chapter 1, digital authoritarianism operates not only through the regulation of bodies but also through the governance of information infrastructures. Article 59 operationalizes this logic by criminalizing the circulation of abortion-related knowledge. Rather than focusing exclusively on the physical regulation of reproductive bodies, the state also seeks to shape the informational environment through which individuals access knowledge about reproductive health and abortion.

By criminalizing certain forms of reproductive information, the law narrows the range of publicly accessible knowledge and constrains the ability of individuals to seek information outside state-approved channels. As a result, reproductive governance increasingly operates not only through the regulation of bodies and medical practices but also through the control of the informational environments in which reproductive decisions are understood, discussed, and acted upon.

2.2.4 Article 54: The Foundation of the National Pregnancy Registry

The foundation of this thesis is Article 54, which mandates the establishment of a comprehensive pregnancy registration and monitoring system. The article states:

“The Ministry of Health, Treatment, and Medical Education is obligated to establish a comprehensive system within six months to register information for all individuals seeking fertility services, pregnancy

⁸³ *Law on Family Protection and Youthful Population*

care, abortion (including reasons), and childbirth outcomes in all health centers, laboratories, and imaging centers, whether public or private, while observing confidentiality principles.”

A subsequent note specifies that healthcare facilities failing to register or update this information may face administrative sanctions, including a warning and, ultimately, the revocation of their operating license. Furthermore, the law requires the Ministry of Health to provide direct access to the system for several state institutions, including the Supreme Council of the Cultural Revolution, the National Population Headquarters, and the Forensic Medicine Organization, while also submitting regular reports to the Islamic Consultative Assembly.

From the perspective of data justice, Article 54 represents a significant expansion of state capacity to collect, centralize, and circulate reproductive information. Once a pregnancy test, prenatal examination, or childbirth outcome is registered within the system, reproductive events are transformed into administrative data that can be monitored, categorized, and circulated across institutional settings. Through this process, the reproductive subject becomes increasingly datafied and rendered legible to state institutions through digital records and bureaucratic classifications.

Drawing on the data justice framework⁸⁴ developed in Chapter 1, Article 54 expands state capacity to collect and circulate reproductive data across institutions. The political significance of the system therefore lies not merely in data collection itself, but in the creation of an interoperable infrastructure through which reproductive bodies become increasingly legible, classifiable, and governable.

Taken together, Articles 51, 52, 54, and 56–60 establish what may be understood as a closed-loop architecture of reproductive governance. Access to contraceptive services is restricted through Articles 51 and 52; reproductive status is recorded and monitored through Article 54; and abortion-related activities are subject to extensive legal penalties under Articles 56–60. Rather than functioning as isolated provisions, these articles operate as interconnected components of a broader system of governance that seeks to regulate reproduction at multiple stages, from the prevention of pregnancy to its registration, monitoring, and outcome.

The Pregnancy Registration System represents the technological realization of Article 54. By requiring the registration of pregnancy-related information across laboratories, clinics, imaging centers, and hospitals, the system extends state visibility into reproductive processes that were previously more difficult to monitor. In this sense, the platform functions more than a medical database. It constitutes a

⁸⁴ Taylor (n 60)

gendered digital infrastructure that organizes, classifies, and governs reproductive bodies through data. Drawing on Wajcman's analysis⁸⁵ of gendered technologies, the system illustrates how technological infrastructures are shaped by social and political priorities and, in turn, participate in the reproduction forms of power. Rather than producing a full manifestation of what Akbari conceptualizes as the Code/Body, the Pregnancy Registration System may be more accurately understood as producing a coded reproductive body, one that becomes increasingly legible, classifiable, and governable through digital records and administrative categories.

2.3 Digital Health Infrastructure and the Datafication of Reproductive Bodies

The Integrated Health System (Samaneh-ye Sib, SIB) serves as the infrastructural foundation of the Iranian national public health system. Contrary to the conventional conception of such infrastructure as merely a means of administration and logistics, the platform serves as the elaborate surveillance apparatus of the state. Access to the platform is restricted to authorized healthcare professionals, including physicians, community health workers (*behvarzan*), and administrators operating under the supervision of the Ministry of Health.

The SIB platform is tasked with registering, aggregating, and maintaining extensive biometric profiles of the population, ranging from neonatal vaccination records to granular medical histories, chronic illness monitoring, and reproductive health information. From a broader global perspective, this is part of the global trend towards the digitization of public services and the implementation of electronic health records. However, the political significance of such systems extends beyond administrative efficiency. Through processes of data collection, classification, and storage, bodily experiences become translated into standardized categories that can be monitored and managed across institutional settings.

Building on Akbari⁸⁶'s conceptualization of the Code/Body discussed in Chapter 1, SIB can be understood as producing a coded body through which reproductive subjects become increasingly legible to state institutions. Within this framework, reproductive events such as positive pregnancy tests, prenatal examinations, laboratory results, and childbirth outcomes are transformed into digital records that can be stored, shared, and monitored across healthcare institutions. The significance of this process lies not merely in the creation of digital information, but in the increasing visibility of reproductive trajectories to administrative systems. Through datafication, reproductive experiences

⁸⁵ Wajcman (n 12)

⁸⁶ Akbari (n 28)

become incorporated into broader infrastructures of governance, enabling the continuous documentation and classification of reproductive life.

This process also creates the conditions for what Akbari describes as a “data trap.” As reproductive information becomes embedded within interconnected digital systems, individuals often have limited capacity to control how their data is circulated, interpreted, or used across institutional contexts. Participation in healthcare infrastructures may therefore generate forms of dependency in which access to services increasingly requires inclusion within data systems from which meaningful exit is difficult.

The political implications of these developments can be further understood through the three-dimensional model of digital authoritarianism proposed by Akbari and Wood⁸⁷. According to this framework, digital governance operates through the interaction of discourses, practices, and infrastructures.

Discourses: The macro-level political discourse and legal mandates represented by the law on “Family Support and Youth Population” which weaponize demographic anxieties to moralize, justify and legitimize the systematic tracking of citizens.

Practices: The routine, everyday bureaucratic and professional operations aimed at implementing these discursive objectives. In this case, it manifests systematic elimination of confidential patient data and forced registration of biometric information through healthcare providers.

Infrastructures: The material and technical layer consisting of the actual platform, databases, source codes, and server networks (the physical architecture of the SIB system). This layer provides the technical capacity to collect, classify, and circulate reproductive information across institutional settings.

Viewed together, these three dimensions demonstrate that reproductive surveillance is not produced by a single law, database, or technological system. Rather, it emerges through the interaction of political narratives, administrative practices, and digital infrastructures that collectively render reproductive bodies increasingly visible, classifiable, and governable.

⁸⁷ Akbari and Murakami Wood, “*Towards a Critical Political Economy of Surveillance and Digital Authoritarianism*,” March 2025; *Surveillance & Society* 23(1):152-158.

2.3.1 The National Pregnancy Registration System: Punitive Datafication and Preemptive Surveillance

In July 2022, the director of Youthful Population Department in the Iranian Ministry of Health publicly announced the National Pregnancy Registration System as a direct technological instrument to enforce the mandate of the “Law on Family Support and Youth Population.”⁸⁸ This centralized portal mandates that the moment a woman visit a doctor with the request of assistance and pregnancy or ultrasound test, her positive biological result must be immediately registered by the healthcare provider to the platform. Analyzing this platform through the three levels of the digital authoritarianism models proposed by Akbari and Wood, indicates how state discourses (the demographic imperative of demographic growth) are translated into algorithmic practices (compulsory registration by the health workers) through a centralized digital infrastructure. Thus, by introducing such a system, the state significantly changes its governance. The registration of pregnancy creates a system through which deviations from expected reproductive outcomes become increasingly visible to state institutions.

Consequently, any unverified disruption that cannot be proved as legitimate exposes a woman to immediate criminal suspicion of illegal abortion. For women navigating unwanted pregnancies or seeking abortion due to socio-economic or personal reasons, the system functions as an automated dragnet. By eliminating medical confidentiality, the infrastructure strips away the physical and legal safety nets traditionally accessed through private healthcare networks, leading feminist activists to rightly characterize the portal not as a medical registry, but as digital apparatus for gendered criminalization.

This infrastructural architecture represents a tangible manifestation of preemptive state surveillance. This infrastructural architecture represents a tangible manifestation of preemptive state surveillance.

From the perspective of data justice⁸⁹, the mandatory registration of reproductive information raises important questions regarding visibility, control, and the unequal distribution of power over personal data. The mandatory registration of gestational information on this portal does not merely entail the bureaucratic collection of information but also reproduces an unequal and unjust allocation of power in relation to information. In this process, biological data is extracted from the female body and converted

⁸⁸ “Rāh-andāzi-ye Sāmāneh-ye Vezārat-e Behdāsh-t-e Irān barā-ye Rahgiri-ye Zanān-e Bārdār” [Iran’s Ministry of Health Launches a System for Tracking Pregnant Women], *Deutsche Welle Persian*, July 15, 2022, accessed June 8, 2026, <https://www.dw.com/fa-ir/راهاندازی-سامانه-وزارت-بهداشت-ایران-برای-رهگیری-زنان-باردار/a-62502161>

⁸⁹ Taylor (n 60)

into a digital resource owned and weaponized by the state, while the data subject is completely alienated from her own information.

Based on Akbari's framework⁹⁰, this process significantly constrains both "exit" and "voice." Women are unable to leave this pervasive surveillance system and cannot speak out against the transformation of intimate biological realities into digital resources. The inability of these women to exit and voice their concerns regarding their privacy and data management results in trapping the female body within the confines of a "data cage" or "data trap".

While the SIB system and the pregnancy Registry represent forms of centralized and institutional surveillance, the expansion of reproductive governance in Iran has not remained confined to health infrastructures. Recent developments indicate a parallel shift toward decentralized and participatory forms of monitoring, where ordinary citizens are increasingly incorporated into the surveillance assemblage. In this sense, reproductive surveillance extends beyond state databases and enters the social sphere through mechanisms of public reporting and digital whistleblowing.

2.3.2 The Abortion Reporting Portal: Lateral Surveillance and the Erosion of Social Trust

In February 2026, the expansion of reproductive surveillance in Iran took on a significant and decentralized form with the launch of the "Abortion Reporting Portal." This platform, supervised by the Ministry of Health and judicial enforcement bodies, allows ordinary citizens to anonymously report suspected cases of illegal abortion, underground medical providers, and networks that distribute abortifacient medications. By placing a digital reporting mechanism in the public sphere, the state shifts some of its policing power to the populace. This integration of a digital reporting system changes the nature of oversight from traditional top-down monitoring to citizen-led surveillance.

This reporting mechanism is not an independent platform operating at the margins of the state apparatus. It has been incorporated directly into the judiciary's official reporting infrastructure under the Office of the Prosecutor General. Through a dedicated section of the prosecutorial portal, citizens are invited to submit reports concerning the sale and distribution of abortifacient drugs, the operation of organized abortion networks, and cases of allegedly illegal abortion. The reporting guidelines explicitly

⁹⁰ Azadeh Akbari, "Digital Development Dilemma," in *Digital Authoritarianism in the Global South: Challenges and Alternatives for the Digital Society*, 15–29 (Abingdon: Routledge, 2024), DOI: 10.4324/9781003395966-3.

request identifying information regarding suspected individuals, as well as details about the physical or digital locations where the alleged activities occur.

The significance of this infrastructure lies not merely in its existence but in its institutional embedding. The reporting portal transforms citizen observation into a formal component of reproductive governance. Furthermore, the Ministry of Health previously introduced a separate reporting system, creating multiple parallel channels through which reproductive activities may be monitored, reported, and investigated. This layered architecture expands surveillance beyond healthcare institutions and embeds reproductive policing across both administrative and judicial infrastructures.

Applying the three-level approach suggested by Akbari and Wood , an analysis of this platform reveals the existence of a dark synergy in which the discourse on the macro level concerning moral police and population survival is implemented in everyday life through citizen reporting practices facilitated by digital technologies. The platform in question marks a notable departure from conventional vertical monitoring to omnidirectional citizen surveillance.

In addition to theorizing this platform, we can deploy the concept of “lateral surveillance”⁹¹ which defines the phenomenon of citizens using digital technologies to monitor, track, and report one another. The abortion reporting portal elevates lateral surveillance from peer-to-peer digital tracking to a formalized mechanism of state reproductive governance.

As Kathryn Conrad⁹² argues in her critique of surveillance and the gendered body, modern tracking systems contribute to the “informatization of the body.” Surveillance has shifted from reacting to specific individual deviance toward proactive “actuarial justice,” which seeks to predict and prevent future risks. This approach relies on “dataveillance” (the surveillance of data) and predictive models that assume gathering more information will lead to complete knowledge and control.

The reporting infrastructure reduces complex reproductive experiences to administratively meaningful categories that can be reported, documented, and acted upon by state institutions. In this process, individuals increasingly appear as data points, cases, or suspected violations rather than as subjects embedded in complex social, economic, and personal circumstances.

⁹¹ Andrejevic (n 40)

⁹² Kathryn Conrad, “Surveillance, Gender, and the Virtual Body in the Information Age,” *Surveillance & Society* 1, no. 4 (2004)

Drawing on Akbari's framework⁹³ of Spatial and Data Justice, it is evident that just as a digital platform for reporting dress-code violations destroyed the "spatial safety" of women in public streets, the abortion reporting portal would threaten the privacy of homes and medical clinics. The SIB registry invades the clinical space, the pregnancy portal tracks the biological body across administrative borders, and the whistleblowing portal invades the domestic space of the home. Through this datafication, the state enforces an aggressive, top-down geometry of power that strips these spaces of safety.⁹⁴

Such mechanisms risk undermining social trust by encouraging citizens to monitor and report one another, while simultaneously expanding the reach of reproductive governance beyond formal state institutions.

2.4 Expert Perspectives on Digital Infrastructures and Reproductive Surveillance

To further contextualize the analysis developed throughout this chapter, I conducted an interview with digital rights scholar Azadeh Akbari, whose work on digital authoritarianism, data justice, and the relationship between bodies and digital infrastructures has significantly informed the analytical framework of this thesis. While Akbari has not directly studied Iran's Pregnancy Registration System or the SIB platform, her theoretical insights offer a valuable way to interpret the broader implications of reproductive surveillance in modern authoritarian contexts.

A central theme emerging from the interview was the importance of distinguishing between digital infrastructures themselves and the political environments in which they operate. Akbari emphasized that digital health systems are not inherently oppressive technologies. Electronic health records, centralized medical databases, and digital monitoring systems can improve healthcare provision, facilitate access to medical services, and support public health planning. In many contexts, digital infrastructures provide significant social benefits, ranging from the monitoring of childhood vaccination programs to the coordination of pharmaceutical services and preventative healthcare interventions. Therefore, the existence of a centralized health database should not automatically be interpreted as evidence of surveillance or authoritarian control.

⁹³ Azadeh Akbari, *Spatial|Data Justice: Mapping and Digitised Strolling against Moral Police in Iran*, Development Informatics Working Paper No. 76 (Manchester: Centre for Development Informatics, Global Development Institute, University of Manchester, 2019).

⁹⁴ Edward W. Soja, *Seeking Spatial Justice* (Minneapolis: University of Minnesota Press, 2010)

However, Akbari argued that the political significance of these systems depends on how they are governed, who controls access to the data they generate, and what legal protections exist for citizens whose information is collected. This observation is particularly relevant in the Iranian context. As demonstrated throughout this chapter, the Pregnancy Registration System was introduced not merely as a technological modernization of healthcare administration but as part of a broader pronatalist project established through the Law on Family Protection and Youthful Population. Consequently, the risks associated with the system emerge not simply from the collection of reproductive information itself, but from the legal and institutional framework within which such information is collected, stored, and used.

A second major theme emerging from the interview concerns the centralization of data and the growing interoperability of digital infrastructures. Akbari emphasized that surveillance does not originate from a single database operating in isolation. Rather, surveillance capacities expand when different databases become interconnected and capable of exchanging information across institutional boundaries. Health systems, civil registration databases, identification systems, insurance records, and administrative infrastructures increasingly communicate with one another, generating comprehensive profiles of citizens that extend far beyond the original purpose for which data were collected.

This observation significantly broadens the analysis presented in this chapter. The Pregnancy Registration System should not be understood solely as an independent platform dedicated to monitoring pregnancy outcomes. Its significance lies in its potential integration within a wider ecosystem of state databases. Once reproductive information becomes linked to national identification systems, civil registration infrastructures, healthcare records, and administrative databases, reproductive surveillance acquires a much broader scope. Under such conditions, pregnancy ceases to be merely a medical event and becomes a data point within a larger architecture of state visibility.

Akbari further noted that one of the most significant risks associated with centralized digital infrastructures emerges when data collected for one purpose become accessible for entirely different forms of governance. This phenomenon is particularly relevant in contexts where comprehensive data protection legislation is absent or weak. In such environments, citizens often possess limited knowledge of how their data are being used and few mechanisms through which they can challenge, restrict, or monitor access to their personal information. Consequently, the problem extends beyond surveillance itself and becomes a question of power over data governance.

The interview also provided an important theoretical clarification regarding the concept of the Code/Body, which has informed much of the analysis developed throughout this thesis. Akbari

emphasized that not all forms of bodily datafication necessarily constitute what she conceptualizes as the Code/Body. During the interview, she distinguished between the digitization of bodily information and situations in which the body itself becomes an operational component of digital infrastructures.

According to Akbari, the concept of the Code/Body refers to configurations in which biological processes become directly integrated into the functioning of technological systems. Examples include biometric border controls, iris-scanning technologies, physiological monitoring systems, and other infrastructures that rely on bodily functions as active inputs within digital operations. In such contexts, the body does not merely generate data; it becomes part of the technological architecture itself.

This distinction has important implications for understanding reproductive surveillance in Iran. While the Pregnancy Registration System undoubtedly transforms reproductive life into a digital object of monitoring and classification, Akbari suggested that such systems may be more accurately understood as producing a *coded body* rather than a full manifestation of the Code/Body. In this formulation, the body is rendered legible, governable, and classifiable through digital categories, databases, and administrative records. Pregnancy becomes encoded through a series of classifications, risk categories, and bureaucratic identifiers that allow institutions to monitor and manage reproductive behavior. The body is therefore governed through code, even if it has not yet become an operational component of the infrastructure itself.

This distinction is particularly useful for the purposes of this thesis because it highlights the process through which reproductive bodies become increasingly visible to state institutions. Through the Pregnancy Registration System, women are transformed into administrative subjects whose reproductive status can be monitored, categorized, and followed across multiple institutional settings. Rather than functioning merely as patients within a healthcare system, they become data subjects embedded within a broader architecture of demographic governance.

Another important theme emerging from the interview concerns the unequal consequences of datafication. Akbari cautioned against understanding digital surveillance as a universal experience affecting all members of society in identical ways. Different social groups encounter data infrastructures under profoundly unequal conditions. Existing social hierarchies, political exclusions, and institutional inequalities often determine which populations become most visible to systems of surveillance.

This observation resonates strongly with the reproductive governance framework developed throughout this thesis. Women in Iran already occupy a position of heightened visibility within state projects concerned with morality, family formation, and population growth. Consequently, reproductive

surveillance infrastructures do not affect all citizens equally. Rather, they disproportionately target a population whose reproductive capacities have become politically significant within broader demographic and ideological projects. The Pregnancy Registration System therefore represents not merely an expansion of digital monitoring but a gendered form of surveillance directed toward a specific category of citizens.

Finally, Akbari's reflections on participation and consent provide important insight into the relationship between individuals and contemporary digital infrastructures. She challenged the common assumption that individuals can simply choose whether or not to participate in systems of data collection. In practice, participation in many digital infrastructures is increasingly unavoidable. Access to healthcare, education, welfare services, and administrative recognition often depends upon inclusion within digital systems that individuals have little power to reject.

Under such conditions, the possibility of meaningful exit becomes severely constrained. Citizens cannot easily opt out of infrastructures that have become prerequisites for social participation. This observation is particularly relevant in the context of reproductive healthcare, where access to medical services may require registration within centralized systems. As digital infrastructures become embedded within everyday life, participation ceases to be voluntary and increasingly becomes a condition of institutional recognition.

Taken together, the interview reinforces the central argument of this chapter that reproductive surveillance in Iran cannot be understood solely through legal restrictions or individual technological systems. Rather, it emerges through the interaction of digital infrastructures, centralized data governance, institutional interoperability, and broader projects of demographic control. The significance of the Pregnancy Registration System therefore lies not simply in its capacity to collect reproductive information but in its role within a wider ecosystem of governance that transforms reproductive bodies into objects of continuous visibility, classification, and intervention. Through this process, the reproductive body becomes increasingly encoded within state infrastructures, creating new possibilities for monitoring, regulation, and political control. The interview therefore does not simply confirm the analysis developed in this chapter. Rather, it refines it by suggesting that the Iranian case may be better understood through the production of coded reproductive bodies, data traps, and constrained possibilities of exit, rather than as a complete manifestation of the Code/Body.

Chapter 3: Lived Experiences, Feminist Resistance, and Reproductive Autonomy

3.1 Introduction:

In chapter two, the complex structure and mechanism of digital authoritarianism, alongside the state's deployment of technological infrastructure to regulate reproduction in Iran, were analyzed in depth. However, understanding a surveillance apparatus as an absolute and totalizing monolith risks overlooking the inherently fractured, disconnected, and dynamic nature of digital spaces. This chapter explores the alternative possibilities that emerge within the digital lifeworld by shifting the analytical focus from the "infrastructures of repression" to the "spaces of resistance."

Although the state seeks to extend biopolitical control through centralized systems of reproductive monitoring and data collection, transforming reproductive bodies into what Akbari conceptualizes as "Code/Body,"⁹⁵ technology inherently possesses a dual and ambivalent nature. It functions as a highly malleable medium that can simultaneously serve the disciplinary objectives of the state or be reclaimed by civil society and grassroots movements as an infrastructure for resistance and care.

This chapter investigates the formation of a feminist accompaniment network established to resist the systematic prohibition and criminalization of abortion. The primary focus of this section is to examine how feminists and activists in Iran, drawing inspiration from global struggle and transnational experiences, have leveraged digital spaces, social networks, and encrypted communication applications to construct a vital care infrastructure. The intermediary platform functions effectively as a tool for reclaiming bodily autonomy by facilitating access to safe abortion resources and verified medical information. Ultimately, by drawing upon the analytical framework of data justice—particularly the concept of "rehumanisation" formulated by Akbari⁹⁶—this chapter will demonstrate how these feminist networks of resistance rupture the state's "data cage", providing Iranian women with the political "Voice" to contest their subjugation and secure pathway for "Exit" from the structure of oppression.

⁹⁵ Akbari (n 28)

⁹⁶ Azadeh Akbari, "The Politics of Data Justice: Exit, Voice, or Rehumanisation?," *Information, Communication & Society* 28, no. 6 (2024) 989–1005

3.2 Theorizing the Ambivalence of Technology

While the rapid increase of surveillance technologies and civic monitoring platforms has generated serious anxieties regarding data privacy, corporate extraction, and authoritarian expansion, technology simultaneously operates as a deeply ambivalent medium.

In a non-democratic context like Iran, digital tools are routinely weaponized by the state to track and criminalize citizens. However, the grassroots social movements continuously reclaim technologies as instruments of resistance and mobilization.

The historical trajectory of digital activism demonstrates that social media platforms have long served as vital infrastructures for organizing dissent when physical public spaces are violently closed. During the 2009 Green Movement in Iran, protesters strategically utilized platforms like Facebook to distribute operational flyers, coordinate assembly times, and amplify the voices of detained activists. The Green Movement is renowned as the first major global event to be broadcast via social media platforms.⁹⁷

Similarly, during the Arab Spring, digital platforms became essential spaces for horizontal organizing under conditions of strict censorship and state-sanctioned violence, specifically in Tunisia and Egypt. Data shows⁹⁸ that surges in virtual political debate frequently occurred just before massive physical protests, suggesting that digital tools helped synchronize revolutionary efforts. Digital tools also facilitated the participation of women, who made up 30 percent of the people actively contributing to Twitter conversations in Tunisia and 33 percent in Egypt during the revolution.

Thus, while digital footprints provide intelligence apparatuses with the opportunities to trace their opponents and expand state repression, these networks help civil society to use these spaces for digital resistance.

⁹⁷ Jared Keller, "Evaluating Iran's Twitter Revolution," *The Atlantic*, June 18, 2010, accessed June 4, 2026, <https://www.theatlantic.com/technology/archive/2010/06/evaluating-irans-twitter-revolution/58337/>.

⁹⁸ Howard, Philip N. and Duffy, Aiden and Freelon, Deen and Hussain, Muzammil M and Mari, Will and Maziad, Marwa, *Opening Closed Regimes: What Was the Role of Social Media During the Arab Spring?* (2011). Available at SSRN: <https://ssrn.com/abstract=2595096> or <http://dx.doi.org/10.2139/ssrn.2595096>

3.2.1 The Emergence of the "Resistance Assemblage"

This tension between top-down containment and bottom-up subversion is effectively conceptualized in scholarship examining digital defiance in highly securitized environments. In the study *"Platform Surveillance and Resistance in Iran and Russia: The Case of Telegram,"*⁹⁹ grassroots digital opposition is framed as the formation of a "resistance assemblage" that specifically challenges and disrupts the state's institutional "surveillant assemblage."

The foundation layer of this resistance often originates within the platform's ideological framework and technical architecture. For instance, the founder of Telegram intentionally engineered the application with data minimalism and encryption protocols to resist authoritarian extraction. Platform consistently refused to surrender encryption keys or user data to the Russian and Iranian governments and created a functional sanctuary for civic organizing.¹⁰⁰

Telegram was mass-adopted in Iran and transformed from a routine messaging application into a vital counter-infrastructure. It fostered the emergence of alternative public spheres, hosting educational channels, virtual book clubs, secure online workshops and feminist collectives that bypassed state censorship to generate critical awareness and mobilize collective action.

3.2.2 Digital Thirdspaces: Virtual Mobilization as Material Intervention

The political value of digital counter-spaces escalates when authoritarian regimes completely close physical public space to civil society. When entering the physical sphere carries an imminent risk of arrest, injury, or death, the virtual spaces provide an alternative opportunity for resistance. The tangible impact of this digital pressure is remembered in a Twitter campaign in response to the finalized death sentence of three young protesters arrested during the 2019 demonstration.¹⁰¹ The collective mobilization of millions of citizens utilizing the Persian hashtag #اعدام_نکنید ("*Do Not Execute*") directly targeted the judicial apparatus, ultimately forcing a halt to the execution and leading to the prisoners' subsequent release.

⁹⁹ Azadeh Akbari and Rashid Gabdulhakov, 'Platform Surveillance and Resistance in Iran and Russia: The Case of Telegram' (2019) 17(1/2) *Surveillance & Society* 223.

¹⁰⁰ Akbari and Gabdulhakov (n 5) 226.

¹⁰¹ Human Rights Watch, 'Iran: No Justice for Bloody 2019 Crackdown' (17 November 2020) <https://www.hrw.org/news/2020/11/17/iran-no-justice-bloody-2019-crackdown> accessed 11 June 2026.

To theoretically explain these digital disruptions, we can look to Azadeh Akbari's framework of Spatial | Data Justice¹⁰², which explores the intersection of digital surveillance and feminist resistance in Iran. Akbari conceptualizes state surveillance as an "active social process" designed for sorting, disciplining, and punishing marginalized groups, specifically targeting women's bodies in public spaces. In Iran, automated surveillance networks and traffic cameras were deployed to detect dress-code violations, automating punishment through financial fines and vehicle confiscation.

However, Akbari demonstrates how civil society actively disrupts this spatial injustice through technological innovation, such as the creation of Gershad¹⁰³, a crowdsourced, anonymous mapping application. This application allows users to collaboratively pin the real-time locations of moral police vans on the virtual map. Therefore, Gershad effectively restores the "spatial safety" of women walking the street, transforming technology into a tactical shield against state harassment.

A parallel manifestation of this digital feminist cartography is found in initiatives like Harasswatch¹⁰⁴ in Iran. Harasswatch, which is a feminist initiative combating violence against women, embedded an interactive map on its digital interface and invited users to anonymously pin locations where they had experienced street harassment. This collaborative data gathering allowed women to collectively identify unsafe neighborhoods, fostering peer-to-peer digital protection and situational awareness.

The strategic counter-utility of these digital thirdspaces explains why the Iranian regime has repeatedly used internet blackouts as a primary doctrine of crisis management during periods of civil unrest. This state strategy of cutting off the nation from the global network became systematically institutionalized during the November 2019 uprisings, which erupted initially in response to a sudden economic crisis and fuel price hikes exacerbated by international sanctions.

This repression policy has been deployed in different uprisings and occasions since then. In January 2025, following a widespread uprising, the state enforced a total internet blackout, cutting internet access for twenty consecutive days to systematically prevent protesters from organizing and to block the transnational flow of human rights documentation.

¹⁰² Azadeh Akbari, *Spatial|Data Justice: Mapping and Digitised Strolling against Moral Police in Iran* (Development Informatics Working Paper No 76, Centre for Development Informatics, University of Manchester 2019).

¹⁰³ Gershad, 'Gershad' <https://gershad.com/> accessed 11 June 2026.

¹⁰⁴ Harasswatch, <https://harasswatch.com/>

Furthermore, at the time of writing this thesis in early 2026, Iran has endured an unprecedented 90-day protracted internet shutdown, triggered on the first day of the regional military escalations involving Israel and the United States.

These recurring disconnections demonstrate that the digital sphere is not just a virtual or detached domain, but it functions as a highly contested material battlefield. The state's willingness to paralyze its own national economy through total digital blackout serves as definitive proof of the immense threat that horizontal, grassroots digital mobilization poses to the regime's survival.

3.2.3 The Expansion of Digital Sanctuary: Bridging Space and Body

The evolution of these initiatives reflects an important shift within feminist digital activism. While initiatives such as Gershad and Harasswatch used crowdsourced technologies to reclaim safer public spaces, the expansion of reproductive surveillance redirected feminist resistance toward the protection of bodily autonomy and reproductive privacy.

It was within this context that Zaagaah¹⁰⁵ emerged. Zaagaah operates as grassroots feminist accompaniment network that repurpose existing digital platforms—including Instagram, Telegram, X, and encrypted email, to spread reproductive knowledge and support individuals seeking abortion care. Through these everyday communication channels, individuals can access verified information, practical guidance, and continuous support throughout the abortion process. In doing so, Zaagaah transforms commercial digital platforms into decentralized infrastructures of care and reproductive autonomy.

3.3 The Social Infrastructure of Resistance: The Case of Zaagaah

The grassroots feminist initiative *Zaagaah* officially announced its existence in December 2021. This mobilization emerged as a direct institutional counter-response to the escalating state-enforced restrictions on reproductive health, contraception, and safe abortion care enacted under the “*Law on Family Protection and Youthful Population*.” On its official platform, Zaagaah explicitly articulates its manifesto, grounding its mission within the global paradigm of reproductive autonomy:

“‘Zaagaah’ defends the right to choose and firmly believes that all individuals, regardless of their class, race, gender, and sexuality, must possess the absolute right to childbearing without coercion, the

¹⁰⁵ Zaagaah, ‘Zaagaah’ <https://zaagaah.com/> accessed 11 June 2026.

termination of pregnancy, access to contraceptive resources, reproductive and sexual health services, menstrual health, and protection against violent practices such as female genital mutilation and forced sterilization. Furthermore, everyone must have access to public, cost-free reproductive and sexual education.”¹⁰⁶

Zaagaah’s identity is fundamentally anchored in the production and dissemination of counter-knowledge regarding reproductive rights, reproductive justice, and safe medical abortion care. In a highly restricted environment where access to accurate reproductive information is increasingly difficult, the initiative functions as an alternative knowledge infrastructure. This practice can be understood through Donna Haraway’s¹⁰⁷ concept of “situated knowledge”, as it privileges embodied experiences and practical forms of expertise that are often marginalized or excluded from official reproductive governance. Rather than treating reproductive subjects as abstract demographic units, Zaagaah foregrounds the lived realities, needs, and experiences of those navigating unwanted pregnancies.

The implementation of the “Family Protection and Youthful Population” Law significantly intensified the criminalization of abortion by expanding legal risks for both abortion seekers and healthcare providers. At the same time, previous studies¹⁰⁸ suggest that the majority of abortions in Iran occur outside formal healthcare settings, with estimates indicating that between 63 to 73 percent take place at home, while only five percent occur in hospitals. Under such conditions, access to reliable information, safe medication, and practical support becomes increasingly important.

It was within this context that Zaagaah identified its primary objective: the creation of a feminist accompaniment network capable of supporting individuals seeking abortion care outside formal institutional structures. The model was directly inspired by the historical struggle and tactical frameworks developed by feminist collectives in Latin America,¹⁰⁹ where accompaniment networks emerged in response to restrictive abortion laws and limited access to reproductive healthcare. These experiences demonstrated how decentralized and horizontal networks of care could provide not only

¹⁰⁶ Zaagaah, ‘[About Us]’ <https://zaagaah.com/درباره-ما/> accessed 11 June 2026, para 3.

¹⁰⁷ Haraway (n) 582

¹⁰⁸ Asr Iran, ‘Ekhtelaḡ-e 2000-Darsadi dar Amar-e Saqt-e Janin’ [A 2000 Percent Discrepancy in Abortion Statistics] (6 April 2025) <https://www.asriran.com/fa/news/1115010>

¹⁰⁹ Sydney Calkin and Melissa Upreti, ‘The Ethics of Care as an Intersectional Praxis: The Feminist Abortion Accompaniment Model’ (2023) *IBIS Reproductive Health* <https://www.ibisreproductivehealth.org/publications/ethics-care-born-intersectional-praxis-feminist-abortion-accompaniment-model> accessed 11 June 2026.

information but also emotional support, practical guidance, and pathways to safer abortion care under punitive legal regimes.

Based on these experiences, Zaagaah adapted the accompaniment model to the Iranian context, using digital communication platforms to connect individuals with reproductive knowledge, mutual support, and safer pathways to care. In doing so, it transformed everyday digital spaces into alternative infrastructures of care, solidarity, and reproductive autonomy.

3.4 From Digital Anxiety to Bodily Agency: Empirical Findings

The empirical material presented in this chapter is based on two primary sources. First, it incorporates findings from an Instagram-based survey conducted through Zaagaah's public platform in May 2026, which received responses from 25 participants. The survey explored the impact of Iran's National Healthy Pregnancy Registry on women's healthcare-seeking behavior. Participants were asked whether the existence of the pregnancy registration system had made them hesitant to seek blood tests, ultrasound, examinations, or medical consultation following a suspected pregnancy.

Second, the chapter draws upon observations accumulated over a three-year period following the establishment of Zaagaah's abortion accompaniment network in 2022. These observations were generated through sustained involvement in the network and documented recurring patterns, concerns, and experiences expressed by individuals seeking abortion-related information and support.

Methodologically, this approach combines elements of feminist digital ethnography and engaged participant observation. As a co-founder and participant in the accompaniment network, I have a dual position as both researcher and accompanier. This positionality provided unique access to the everyday operation of the network while also requiring continuous reflexivity regarding the production and interpretation of data.

To protect privacy and confidentiality, all identifying information has been removed, and quotations are presented anonymously.

3.4.1 The Anatomy of Digital Anxiety and the Chilling Effect

The centralized pregnancy registries and health surveillance infrastructures integrated into Iran's reproductive governance system have significantly increased fears of legal scrutiny among women

seeking to manage unwanted pregnancies. These surveillance mechanisms have generated a pronounced chilling effect on women's engagement with formal reproductive healthcare services. Following a positive home pregnancy test, many women deliberately avoid laboratory confirmation tests or early sonographic examinations because they fear that their pregnancy status may be recorded within state databases.

Whether the pregnancy occurs within marriage or outside legally recognized relationships, many women express concerns that their personal information may become permanently incorporated into state monitoring systems, limiting their future reproductive choices. Consequently, some choose to remain medically invisible, initiating medication abortion without undergoing standard clinical procedures.

A February 2026 interview with Reza Saeedi, head of the Youthful Population Center at the Ministry of Health, suggests that the National Healthy Pregnancy Registry is actively collecting and classifying reproductive data. Speaking to Mizan News Agency, Saeedi stated that 36,819 abortions had been registered during the first six months of 2025, including 1,100 cases categorized as intentional abortions.¹¹⁰ While these figures indicate that intentional abortions are being systematically recorded, public information regarding the consequences of such registration remains limited.

Messages received through Zaagaah reveal that concerns regarding registration and monitoring have substantially eroded trust in clinical institutions. In a survey conducted among Zaagaah followers on Instagram, users were asked *"Has the deployment of the national pregnancy registry affected your experience when seeking medical consultation after a suspected pregnancy?"* Among respondents who were aware of the registry, concerns about registration and surveillance emerged repeatedly in their responses. Many reported avoiding laboratories or ultrasound due to concerns about data collection and possible legal repercussions.

One woman explained: *"Because of the current situation, I am afraid of going for a sonography or laboratory test. I am scared that my name will be registered somewhere and create problems for me."*

¹¹⁰ Mizan Online, 'Sarparast-e Markaz-e Javani-ye Jamiat-e Vezarat-e Behdasht: Tanha Se Darsad az Saqt-e Janin-haye Sabt Shode dar Shesh Maheh Ebtedayi-ye Sal-e Jari Amdi Budeh Ast' [Head of the Ministry of Health's Population Youth Center: Only Three Percent of Registered Abortions in the First Six Months of the Current Year Were Intentional] (20 November 2023) <https://www.mizanonline.ir/fa/news/4864772> accessed 11 June 2026.

Another wrote:

“Because of the country’s current situation, I am terrified of going to a doctor and getting tested. Please tell me how I can determine how many weeks pregnant I am without a sonography.”

These narratives suggest that surveillance infrastructures affect reproductive decision-making not only through formal legal restrictions but also by transforming how healthcare institutions are perceived. Laboratories, clinics, and physicians are increasingly understood not solely as sites of care, but also as potential sites of registration and monitoring. As a result, avoidance of formal healthcare may become a significant consequence of digital reproductive governance.

A young woman navigating an unwanted pregnancy from a non-marital relationship in the highly conservative and hyper-securitized city of Mashhad encapsulates this total paralysis when reaching out to Zaagaah’s Instagram interface:

“I am terrified of going to the doctor. I am scared that something will be officially registered in their system.”

The effects of this anxiety extend beyond healthcare utilization. One respondent stated:

“It has severely affected my sex life.”

Another reflected: *“One of the reasons I realized my pregnancy so late and never went for an ultrasound was exactly this fear.”*

Such testimonies indicate that the consequences of reproductive surveillance extend into intimate relationships, emotional wellbeing, and bodily health. Delayed diagnosis may result in later-stage abortions that are medically more complex and potentially riskier. The empirical material suggests the emergence of a distinct form of *digital reproductive anxiety*. Unlike earlier forms of reproductive fear associated with social stigma, family pressure, or legal restrictions, this anxiety is specifically rooted in the possibility of digital registration, data retention, and future traceability within state infrastructures. The fear expressed by participants is not simply fear of abortion itself, but fear of becoming permanently visible within a reproductive surveillance system.

3.4.2 Tactical Accompaniment and Feminist Trust

Within Zaagaah's operational model, support begins when an individual establishes contact through digital communication channels such as Instagram or email. After an initial assessment process, users are connected to facilitators and trusted sources of medication who assist them throughout the abortion process.

Operating under authoritarian conditions presents significant challenges for verification and security. Unlike formal institutions, accompaniment networks cannot always rely on sophisticated technical security infrastructures. Many users communicate through anonymous accounts and are reluctant to disclose identifying information. Consequently, the network frequently relies on what may be described as feminist mutual trust: a relational form of trust developed through shared vulnerability, reciprocal care, and collective commitment to reproductive autonomy.

Verification may involve reviewing available medical documents or asking contextual questions to establish credibility. Nevertheless, these processes remain imperfect and vulnerable to infiltration.

Upon acquiring the pharmaceutical protocol, the individual is never abandoned. Zaagaah provides exact dosage guidelines, physical self-care manuals, and post-termination safety protocols. Crucially, throughout the active hours of the self-managed abortion¹¹¹, the user remains in continuous, real-time textual communication with a dedicated feminist accompanier¹¹²¹¹³ to monitor physical symptoms, bleeding thresholds, and vital stability. Furthermore, because state surveillance prevents a significant portion of individuals from safely accessing post-abortion clinical ultrasound to verify complete uterine evacuation, the accompanier systematically guides the user through alternative, non-institutional methods of tracking physical recovery and managing potential retained tissue.

Yet these limitations also reveal an important characteristic of feminist accompaniment networks. Their operation depends not primarily on technological control but on relationships of trust and care. As

¹¹¹ Heidi Moseson and others, 'Effectiveness of Self-Managed Medication Abortion with Accompaniment Support in Argentina and Nigeria (SAFE): A Prospective, Observational Cohort Study and Non-Inferiority Analysis with Historical Controls' (2022) 10(1) *The Lancet Global Health* e105–e113.

¹¹² Sara Larrea and others, "'Being an acompañante gave me feminism, life, joy, emotions': The Lived Experience of Abortion Activists from Four Collectives in Latin America' (2026) *SSM – Qualitative Research in Health*.

Jennifer Nedelsky¹¹⁴ argues that autonomy is not exercised in isolation but emerges through supportive social relationships. From this perspective, the accompaniment provided by Zaagaah does not diminish women's agency; rather, it enables reproductive decision-making by creating the relational conditions necessary for exercising autonomy.

The field notes repeatedly demonstrate that women valued not only medical information but also the emotional support provided by the network. References to trust, companionship, reassurance, and solidarity appear throughout participants' narratives.

As one woman wrote:

"I was completely alone. But you were there. Your empathy and companionship helped me."

Another explained:

"No one knew about my abortion. I was overwhelmed by the stress of being alone. But after talking to you, I finally felt calm."

These accounts suggest that Zaagaah functions not merely as a channel for distributing information but also as an alternative infrastructure of care. In a context where surveillance and criminalization often produce isolation, fear, and withdrawal from formal institutions, accompaniment networks create spaces in which trust, support, and reproductive agency can be rebuilt.

A Tehran-based journalist who successfully executed a safe abortion through Zaagaah's accompaniment network documented her experience within this alternative network as follows:

"I consulted a formal doctor and received absolutely zero guidance; they only used their words to pressure me, demanding that I must keep the pregnancy. They told me to never even think about abortion. You were my saving angels. It was a massive source of strength for me that on the day of the abortion, you were responsive every single moment, and I survived this process."

Another woman describes her experience of abortion and deconstructs the structural binary between state-induced terror and feminist solidarity:

¹¹⁴ Nedelsky (n)

"The fears and stresses they had forced onto me beforehand had completely terrified me, but the dear Zaagaah team was beside me every single moment—like a true guardian and protector. Every single hour of the day or night that I messaged them, they answered me immediately and completely free of charge. Humanity is still alive; I realized this alongside Zaagaah during this process."

Viewed through the lens of relational autonomy and feminist ethics of care¹¹⁵, resistance in this context is not simply opposition to state power. It is also the creation of alternative social relations that make reproductive decision-making possible under conditions of surveillance and uncertainty. The findings suggest that the most significant consequence of reproductive surveillance may not be the collection of data itself, but the production of digital reproductive anxiety. Faced with the possibility of registration and future monitoring, women alter their healthcare-seeking behavior, avoid clinical institutions, delay diagnosis, and increasingly rely on informal networks of care.

3.4.3 Limits and Vulnerabilities of Digital Resistance

While digital spaces have created important opportunities for social movements and rights defenders under authoritarian conditions, they also generate new forms of vulnerability. The case of Zaagaah illustrates that digital resistance is neither frictionless nor immune from state intervention. Rather, its effectiveness is constantly shaped by tension between accessibility, security, and sustainability. Most individuals seeking abortion support contact Zaagaah through social media platforms, particularly Instagram, which remains one of the most widely used platforms in Iran. This creates significant challenges for the network to verify the users and their demands. Unlike formal organizations, accompaniment networks cannot rely on institutional mechanisms for authentication, and therefore they have to operate in an environment characterized by uncertainty and security risk.

Although the members of the network receive digital security training and adopt a range of protective measures to reduce online attacks and surveillance, these practices cannot fully eliminate the vulnerability created by operating within a highly monitored digital environment. As a result, the network remains exposed to infiltration attempts and targeting by state actors.

¹¹⁵ Sydney Calkin and Melissa Upreti, 'The Ethics of Care as an Intersectional Praxis: The Feminist Abortion Accompaniment Model' (Ibis Reproductive Health, 2023) <https://www.ibisreproductivehealth.org/publications/ethics-care-born-intersectional-praxis-feminist-abortion-accompaniment-model> accessed 11 June 2026.

A central dilemma is the relationship between accessibility and security. Accompaniment networks in Latin America mostly operated through relatively closed circles of trust. In this model, individuals were introduced through personal referrals and existing social connections. Such a model provided a higher degree of security but significantly limited access.

In the Iranian context, however, restricting access to trusted circles would have dramatically reduced the network's ability to support women across the country. Given Iran's size and the unequal distribution of reproductive health resources, limiting support to existing social networks would have excluded many individuals, particularly those living in marginalized or underserved area.

Consequently, Zaagaah adopted a more open engagement model in which support is offered to anyone seeking assistance. While this approach expands access and democratizes reproductive care, it simultaneously increases the risk of infiltration. Not every request for assistance comes from a real person; some may be attempts by state actors to identify the network participants, trace medication supply chains, or gather information about the network's internal operations.

These vulnerabilities are not merely theoretical. In February 2026, one of the pharmacies supplying abortion medication to the network was identified by security authorities and subsequently summoned by the police. This incident illustrates the material limits of digital resistance and demonstrates that alternative infrastructures of care remain embedded within the broader structure of state power.

The Zaagaah's experience therefore highlights a fundamental paradox of feminist accompaniment networks under authoritarian conditions; the openness that enables care, solidarity and accessibility also creates new forms of vulnerability. The resistance network must continuously navigate this tension and balance the ethical commitment to support as many people as possible against the practical necessity of protecting participants from surveillance and repression.

3.5 Reproductive Justice under Digital Governance

The findings in this chapter indicate that digital reproductive governance does not impact all women equally. Restrictions on abortion have long been criticized for harming marginalized communities. Now, the rise of digital surveillance introduces new inequalities that further affect access to reproductive healthcare.

Reproductive justice scholars have argued that the question is not simply whether abortion is legal or illegal. Loretta Ross¹¹⁶ and other reproductive justice advocates emphasize that reproductive autonomy depends on access to resources, safety, and information relies on access needed to make meaningful choices. The existence of a formal right or the absence of legal prohibition does not automatically guarantee equitable access to reproductive healthcare.

The findings of this research suggest that similar inequalities exist in both surveillance and resistance systems. While state reproductive surveillance is formally designed to encompass the entire population, individuals possess vastly different capacities to understand, navigate, and respond to these monitoring infrastructures.

Many women with higher levels of education, digital literacy, and access to online information are aware of the National Healthy Pregnancy Registry and the increasing digitization of reproductive governance. When confronted with an unwanted pregnancy, some actively avoid formal registration system, seeking trusted healthcare providers, or accessing information through feminist accompaniment networks such as Zaagaah.

However, not everyone has access to these strategies. Women living in rural or underserved area, individuals with limited digital literacy, and those with restricted access to social media platforms may be unaware of both surveillance infrastructure and alternative networks that have emerged in response to it. Consequently, the capacity to resist reproductive surveillance becomes unevenly distributed.

This inequality matters because the same population often suffer the most from pronatalist policies. As discussed in Chapter Two, the implementation of the Law on Family Protection and Youthful Population disproportionately affected low-income and marginalized women by restricting access to publicly funded contraception and reproductive health services. These women find themselves in a doubly vulnerable situation: they are more dependent on public healthcare systems while simultaneously possessing fewer resources to avoid surveillance or access alternative pathways to care,

From a reproductive justice perspective, the central issue is therefore not only surveillance itself, but the unequal distribution of both risk and resistance. Digital governance produces new vulnerabilities, while access to counter-infrastructures of care is shaped by existing social, economic, geographic, and technological inequalities.

¹¹⁶ Loretta J. Ross and Rickie Solinger, *Reproductive Justice: An Introduction*

3.6. Conclusion

This chapter shifted the analytical focus from the infrastructures of reproductive surveillance discussed in the previous chapter to the lived experiences and resistance practices that emerge in response to them. The findings suggest that the effects of digital reproductive governance go beyond the collection of reproductive data and the expansion of state monitoring capacities. Rather, surveillance infrastructures change everyday reproductive decision-making by creating what this thesis conceptualizes as *digital reproductive anxiety*: an ongoing concern regarding registration, monitoring, and future visibility within state data systems.

The empirical material demonstrated how this anxiety leads to a chilling effect on healthcare-seeking behavior, leading some women to avoid formal medical institutions, delay diagnostic procedures, and seek alternative ways to receive care. At the same time, the chapter showed that these processes are neither total nor uncontested. Through the case of Zaagaah, it examines how feminist accompaniment networks repurpose digital technologies to circulate reproductive knowledge, provide practical support, and rebuild relationships of trust in the context of criminalization and surveillance.

However, the chapter also highlighted the limitations and vulnerabilities of digital resistance. Access to alternative infrastructures of care is uneven. The openness needed to support marginalized individuals also exposes networks to surveillance, infiltration, and repression. Consequently, both surveillance and resistance are shaped by broader inequalities in access to information, digital literacy, and social resources.

Overall, these findings suggest that digital technologies are neither just tools of control nor solely tools of liberation. They represent contested spaces where reproductive governance and feminist resistance are enacted, negotiated, and transformed.

Chapter 4. Conclusion

4.1 Introduction

This thesis has examined the transformation of reproductive governance in contemporary Iran through the intersection of pronatalist policymaking, digital surveillance infrastructures, and feminist resistance. Using theories of biopolitics, reproductive justice, data justice, and digital authoritarianism, it has explored how the Iranian state governs reproduction through digital systems designed to make reproductive life visible, traceable, and manageable. While discussions about reproductive surveillance often center on legal restrictions and demographic policies, this research has argued that contemporary reproductive governance cannot be fully understood without examining the digital infrastructures that monitor, classify, and incorporate reproductive bodies into broader projects of population management.

The central argument developed throughout this thesis is that the implementation of the Family Protection and Youthful Population Law goes beyond a policy shift toward pronatalism. Rather, it constitutes a broader transformation in the technologies of governance that increasingly turn reproductive life into data. Through the integration of digital health infrastructures such as the SIB system, the National Healthy Pregnancy Registry, and citizen-reporting mechanisms, reproductive experiences are converted into administrative categories and digital records that can be monitored across institutional settings. In this process, the reproductive body is transformed into what this thesis conceptualized as a datafied reproductive body, which is legible, classifiable, and governable through data.

At the same time, this thesis has argued that the consequences of these transformations extend beyond the state's ability to collect information. Digital infrastructures change how individuals experience healthcare, risk, privacy, and autonomy. The empirical findings presented in Chapter Three demonstrated that surveillance systems affect reproductive decision-making not only through direct intervention but also through the anticipation of surveillance itself. Women modify their behavior, avoid healthcare institutions, delay medical consultations, and seek alternative pathways to care because they fear becoming visible within state databases. These findings led to the development of the

concept of “digital reproductive anxiety”, which constitutes one of the central contributions of this research.

However, the findings also demonstrate that digital technologies are not only tools of control. The same digital environment that enables new forms of surveillance simultaneously creates opportunities for resistance. Through the case of Zaagaah, this thesis has explored how feminist activists use digital platforms to build alternative care systems, trust, and reproductive knowledge. By doing this, they challenge the state's control over reproductive information and create practical ways for women to maintain their reproductive autonomy despite legal restrictions and surveillance.

This thesis has shown how digital infrastructures are used to govern reproductive life in contemporary Iran. However, the significance of feminist resistance is not only in contesting this system of control, but also in creating ways through which women can preserve bodily autonomy, access reproductive knowledge, and exercise reproductive agency despite growing surveillance and restriction.

4.2 From Reproductive Governance to Digital Reproductive Governance

The first contribution of this thesis demonstrates how reproductive governance in Iran has evolved into a digital form of governance. Previous studies on reproductive governance have shown how states regulate fertility through legal frameworks, medical institutions, religious discourses, and demographic policies. However, in the case of Iran, these traditional methods merge with digital systems.

As demonstrated in Chapter One, reproductive governance has historically depended on the production of legibility. States seek to simplify the complexity of reproductive life into clear categories that can be monitored, measured, and governed.¹¹⁷ Based on the work of James Scott, Michel Foucault, Deborah Lupton, Ruha Benjamin, and Azadeh Akbari, this thesis argued that digital technologies significantly expand the state's capacity to produce such legibility. Through datafication, intimate biological experiences become visible as digital objects that can be collected, categorized, and integrated into broader systems of governance.

The analysis of the Family Protection and Youthful Population Law revealed how demographic anxiety became translated into digital architecture. While the law publicly presents itself as a mechanism for supporting family formation and increasing fertility rates, its implementation relies on surveillance infrastructures that extend state visibility into reproductive life. The establishment of the National

¹¹⁷ Scott (n 11).

Healthy Pregnancy Registry clearly represents this transformation. Through mandatory registration, pregnancy shifts from being just a personal medical experience to a data event subject to institutional monitoring.

The importance of this system goes beyond the collection of reproductive information. Rather, it emerges through the development of interconnected infrastructures that link reproductive data to broader administrative systems. As discussed in Chapter Two, reproductive governance increasingly operates through the interaction of ideas, practices, and infrastructures. Demographic concerns provide political justification for surveillance. Healthcare professionals become responsible for enforcing registration requirements. Meanwhile, digital platforms provide the necessary tools to collect and circulate information.

Therefore, reproductive governance in contemporary Iran should not be understood just as legal restrictions on abortion. It is part of a broader digital governance where reproductive bodies are incorporated into systems of classification, prediction, and administrative visibility. This change marks a significant evolution in the relationship between state power and reproductive life.

4.3 Digital Reproductive Anxiety and the Chilling Effect

One of the main findings of this thesis is what I conceptualize as *digital reproductive anxiety*. This concept is based on observations collected through Zaagaah's abortion accompaniment network between 2022 and 2026, as well as survey findings presented in Chapter Three. This concept describes a specific form of anxiety caused by the expansion of reproductive surveillance infrastructures.

This anxiety is different from earlier reproductive fear linked to social stigma, family pressure, or legal restrictions. Digital reproductive anxiety emerges from concerns about registration, data retention, and future tracking within state-controlled systems. Many women expressed concerns that laboratory tests, ultrasound examinations, or consultations with healthcare providers could lead to their reproductive data being permanently recorded in the National Healthy Pregnancy Registry. The fear was not only the immediate disclosure of a pregnancy, but the possibility that reproductive data could be shared with institutions monitoring and criminalizing abortion.

The findings suggest that the effects of reproductive surveillance extend beyond direct state intervention. Even without formal investigation or prosecution, the anticipation of surveillance shapes reproductive decision-making. Several participants reported avoiding laboratories, delaying

sonographic appointments, or attempting to manage abortion without formal medical supervision because they feared becoming visible within state databases.

This process may create a chilling effect on healthcare-seeking behavior. With the threat of data registration and future oversight, some women withdraw from healthcare services that would normally provide vital reproductive care. As a result, surveillance systems affect not only reproductive choices but also access to healthcare, trust in medical institutions, and broader experiences of bodily autonomy.

The concept of digital reproductive anxiety therefore highlights an important dimension of digital reproductive governance. The power of surveillance lies not just in collecting and processing data; it also shapes behavior through the anticipation of observation.

4.4 Feminist Resistance and Alternative Infrastructures of Care

The development of reproductive surveillance has led to new forms of vulnerability, fear, and uncertainty. However, the findings of this thesis demonstrate that women are not passive subjects of digital governance. The case of Zaagaah illustrates how feminist actors create alternative ways to access reproductive knowledge, emotional support, and practical guidance, despite increasing restrictions on reproductive healthcare. Zaagaah does not function as a formal healthcare provider, but operates as a feminist accompaniment network that helps individuals to access safe abortion. Inspired by Latin American accompaniment networks, Zaagaah provides information about medical abortion, accompanies women throughout the abortion process, and offers guidance for post abortion care.

Moreover, Zaagaah can also be seen through the lens of care ethics. Care ethics is a theory or approach to social and political life that focuses on caring as a fundamental concept rather than seeing it as a personal or individual responsibility. According to Joan Tronto, one of the key thinkers in this theory, caring is not just an emotional or personal concept but also one that is closely associated with concepts such as responsibility and power.¹¹⁸

Therefore, accompaniment reflects what can be understood as “caring with”, a form of care grounded in solidarity and collective action rather than individual responsibility. Through this lens, feminist accompaniment emerges not only as a practice of care but as one that politicizes care, transforming it into a form of resistance.

¹¹⁸ Joan C Tronto, *Moral Boundaries: A Political Argument for an Ethic of Care* (Routledge 1993).

The findings suggest that the significance of Zaagaah lies not primarily in its capacity to challenge state power directly, but in its ability to mitigate some of the consequences produced by digital reproductive governance. As demonstrated in Chapter Three, many women approached the network after avoiding healthcare institutions due to concerns about registration and surveillance. Under these conditions, accompaniment became more than a mechanism for accessing information. It functioned as a practice of care that helped women navigate uncertainty, reduce isolation, and regain confidence in their reproductive decision-making. In this sense, accompaniment partially mitigates the effects of digital reproductive anxiety by providing forms of trust and support that are increasingly difficult to access through formal healthcare institutions.

The findings also suggest that feminist resistance in contemporary Iran operates not only through protest and political opposition but also through the creation of everyday practices of care, solidarity, and knowledge-sharing. While such initiatives remain vulnerable to state repression and cannot fully overcome the structural inequalities produced by reproductive governance, they nevertheless provide meaningful pathways through which women can preserve bodily autonomy and exercise reproductive agency despite growing surveillance and restriction.

4.5 Theoretical Contributions

This thesis contributes to the literature on reproductive governance, digital surveillance, and reproductive justice in three principal ways.

First, it extends current research on reproductive governance by demonstrating how reproductive control increasingly relies on digital infrastructures. Previous studies have examined the legal, medical, and ideological dimensions of reproductive governance. However, the case of Iran illustrates how these systems are linked within digital systems. Through the National Healthy Pregnancy Registry, the SIB health platform, and abortion reporting portals, reproductive life is transformed into administrative categories that can be monitored, classified, and governed through data. Building on existing discussions of biopolitics¹¹⁹, state legibility, and datafication, this thesis conceptualizes this transformation as a form of digital reproductive governance.

Second, this research introduces the concept of *Digital reproductive anxiety* to describe the lived consequences of reproductive surveillance. The findings suggest that the effects of surveillance go

¹¹⁹ Foucault (n 13)

beyond direct intervention, and the anticipation of being traced in the future can shape behavior. Women may avoid healthcare institutions because they fear becoming visible within state-controlled databases. Therefore, digital reproductive anxiety highlights the affective and behavioral consequences of reproductive surveillance. While current research has focused on reproductive surveillance and digital governance, fewer studies have examined the affective consequences of reproductive datafication. The concept of *digital reproductive anxiety* seeks to address this gap by highlighting how anticipation of surveillance shapes reproductive behavior.

Third, this thesis contributes to feminist discussions of resistance by demonstrating the importance of care, trust, and accompaniment under conditions of digital authoritarianism. The case of Zaagaah shows that resistance does not occur only through public protest or confrontation with state power. It can also emerge through the creation of alternative ways of support that enable women to access reproductive knowledge, emotional care, and practical assistance. Based on theories of relational autonomy and reproductive justice, the findings suggest that reproductive agency is sustained through social relationships that help individuals navigate restrictive environments. In this context, accompaniment works as a practical strategy for accessing abortion care and as a feminist practice of solidarity that supports bodily autonomy under surveillance and criminalization.

Overall, these contributions demonstrate that reproductive governance in Iran should not be understood only through legal restrictions or demographic policy. Rather, it operates through the interaction of digital infrastructures, affective experiences of surveillance, and everyday practices of resistance. This thesis, by putting these dimensions together, contributes to a growing body of scholarship examining how reproductive politics are being reshaped in the digital age

4.6 Limitations and Future Research

This research was conducted under significant methodological and political constraints that shaped both the scope of the study and the forms of evidence that could be collected.

One of the primary limitations was access to participants. When I planned to conduct interviews with women through Zaagaah's platform, internet access in Iran was subject to a prolonged shutdown. Following political unrest and, later, the outbreak of military invasion, internet connectivity was severely limited for several months. These disruptions reduced the possibility of maintaining secure and reliable communication with potential participants and made the organization of interviews increasingly difficult.

At the same time, the risks associated with participation increased considerably. During this research, Iranian security institutions publicly labeled Zaagaah as one of several platforms allegedly connected to foreign influence and espionage. Under such conditions, any direct engagement with the platform potentially exposed users to heightened scrutiny and security risks. Given the ethical responsibility to minimize harm, I decided not to pursue extensive interviews that could place participants in a vulnerable position. Thus, the research relied on a limited online survey conducted through Zaagaah's public platform and on empirical observations accumulated through years of accompaniment work.

Another limitation was access to official information. Researching reproductive surveillance in Iran presents particular challenges due to the lack of transparency in state institutions and the absence of publicly available data regarding the implementation of digital reproductive governance systems. While legal documents, public statements, expert interviews, and technical descriptions provide important insight into the structure of reproductive surveillance, they do not allow for direct observation of how these systems operate internally or how data are circulated between institutions. Consequently, some aspects of the Pregnancy Registry and related infrastructures remain difficult to verify independently.

The researcher's positionality also shaped both the possibilities and limitations of this study. As a co-founder of Zaagaah and an active abortion accompanier for more than three years, I hold a dual position as both researcher and participant within the field under investigation. This positionality inevitably shaped the questions asked, the forms of knowledge prioritized, and the interpretation of empirical material. However, it also provided a unique form of access to experiences that would have been difficult to obtain through traditional research methods. Through ongoing engagement with women seeking abortion-related information and support, I gained insight into the everyday effects of reproductive surveillance, including fears surrounding pregnancy registration, data collection, and the potential criminalization of reproductive decisions. This thesis treats my positionality not just as a source of bias, but as a form of situated knowledge that contributes to understanding lived experiences under conditions of digital reproductive governance. Rather than claiming a position of complete neutrality, this thesis acknowledges that knowledge is always produced from a particular social position.

These limitations suggest several directions for future research. First, future studies could explore how reproductive surveillance affects different social groups, including women from diverse socioeconomic, ethnic, and geographical backgrounds. Second, comparative research could investigate similar forms of reproductive datafication and surveillance in other countries, allowing for a broader

understanding of digital reproductive governance beyond Iran. Third, further research is needed to explore the long-term consequences of reproductive surveillance on healthcare-seeking behavior, trust in medical institutions, and perceptions of bodily autonomy. Finally, additional work on feminist accompaniment networks could deepen our understanding of how care, solidarity, and reproductive support are organized under conditions of legal restriction, surveillance, and political repression.

Overall, these limitations highlight the challenges of conducting research on reproductive governance in authoritarian contexts. At the same time, they underscore the importance of developing methodological approaches for documenting lived experiences, informal practices of care, and forms of resistance that often remain invisible within official records and state-produced data.

4.7 Final Reflection

This thesis has argued that reproductive governance in Iran is increasingly exercised through digital infrastructures that turn reproductive life into a governable object of data. By combining legal restrictions, health information systems, pregnancy registries, and reporting mechanisms, reproductive bodies become more visible to institutions seeking to monitor, classify, and regulate fertility. In this way, reproduction is no longer governed only through laws, medical authority, or ideological discourse, but increasingly governed through data.

The findings of this research suggest that the significance of these developments extends beyond the technical capacity to collect information. The expansion of reproductive surveillance reshapes how women experience healthcare, privacy, risk, and bodily autonomy. The concept of digital reproductive anxiety developed in this thesis highlights how governance works not only through direct intervention, but also through anticipation, uncertainty, and the possibility of observation. Women change their behavior not necessarily because they have been surveilled, but because they believe they may be surveilled. In this sense, the power of digital reproductive governance lies as much in its psychological and emotional effects as in its administrative capacities.

At the same time, this research has demonstrated that women are not passive subjects of governance. The experiences documented through Zaagaah reveal the rise of feminist practices that seek to preserve reproductive autonomy under conditions of surveillance and restriction. Through accompaniment, knowledge-sharing, and relationships of care, women and feminist activists create forms of support that enable reproductive decision-making despite increasingly hostile conditions. These practices do not

eliminate structural inequalities or dismantle systems of surveillance. However, they provide meaningful ways to navigate these challenges.

Ultimately, this thesis suggests that current struggles over abortion in Iran are not just about legality or access to healthcare. They are also about visibility, knowledge, trust, and the right to make decisions about one's own body. As reproductive life is increasingly incorporated into digital infrastructures, questions of who collects data, who controls it, and how it is used become central questions of reproductive justice.

The Iranian case demonstrates that digital technologies are never neutral tools. They can be mobilized to expand state visibility and strengthen mechanisms of control, but they can also be used to circulate knowledge, build solidarity, and support bodily autonomy. Understanding this tension is essential not only for analyzing reproductive politics in Iran, but also for understanding the future of reproductive governance in an increasingly datafied world.

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