

The 3-Body Problem of AI Integration in Architectural Defensible Spaces Influencing the Psychological Well-Being of Community

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KEYWORDS

Artificial intelligence, Cultural Competency, Good Health and Well-being, Defensible Spaces, Territoriality, Crime Prevention.

ABSTRACT

This study explores how the interplay of architectural design, AI-driven crime prevention, and psychological well-being form a complex, interdependent system, similar to the 'Three-Body Problem' in physics. The "Three-Body Problem" in physics is a phenomenon that refers to the complicated and chaotic behaviour of three celestial bodies that interact gravitationally, making it extremely difficult to predict their precise motion over time due to mutual interactions. This notion can apply to the connection of building design, crime prevention, integration of AI in architectural designs and individual psychological behaviour (both residents and potential offenders). This study investigates the implementation of AI from basic to advanced levels in urban contexts to see how technological improvements can affect inhabitants' psyches and influence cultural and social behaviours, including intergenerational psychological consequences and adaptation to technological and environmental changes. It also examines how these changes influence psychological reactions and societal dynamics throughout generations, focusing mainly on Dubai, UAE and Northern Cyprus (Nicosia, Famagusta, Kyrenia, Lapta, and Iskele) settings. This study employs a mixed methodology approach, data mining, a comparative case study, and geospatial analysis of two different places on an international level that focuses predominantly on multicultural communities, followed by surveys and questionnaires. The findings show that Dubai's AI-driven security enhances safety but raises privacy and social trust concerns, requiring a balanced approach that considers technological advances and psychological effects on individuals under constant surveillance. The study's conclusion aims to assist urban planners and policymakers developing environments that balance technological innovation with psychological and social well-being.

1. Introduction

The First Body (Architecture, Defensible places, and Crime Prevention) focuses on designing buildings and urban places to reduce crime by considering the design factors such as access controls, lighting, and visibility to deter criminal activity and improve safety. Psychological Impact, Community Dynamics, and Cultural Influences (Second Body) emphasise how individuals feel and interact in these places. It involves psychological responses to architecture, such as feelings of safety or tension, and how communities create norms and behaviours shaped by their cultural backgrounds. Artificial intelligence, technology, and virtual reality (Third Body) are the advanced tools encompassed in architectural design. AI might be used for surveillance or monitoring, whilst VR could simulate security scenarios. These technologies promise to improve safety and efficiency but raise worries regarding interactions, technological integrations and community dynamics. The use of artificial intelligence (AI) into urban services and crime prevention tactics signifies a crucial transformation in urban safety and security management. Although AI has potential for improving urban planning and law enforcement (Yigitcanlar et al., 2022; Zhang et al., 2024; Pan et al., 2024), it also presents several intricate issues that require thorough analysis. The public's perception of AI, especially regarding crime prevention, is laden with psychological ramifications and ethical concerns that might profoundly influence social dynamics.

The use of AI technology in urban settings generates urgent issues about privacy, autonomy, and social equality. Studies suggest that although AI might enhance operational efficiency, it may also intensify pre-existing disparities and erode public confidence in law enforcement and wellbeing (Ezzeddine et

al., 2023; Timmons et al., 2022; Song et al., 2024; Shirehjini et al., 2023). The influence of AI on employees' identity and social connections in the workplace is significant, since new technologies are reshaping conventional roles and relationships (Selenko et al., 2022). Furthermore, the potential for the malevolent use of AI, including social engineering and the propagation of disinformation, presents other hazards that transcend immediate crime prevention and have larger societal implications (Blauth et al., 2022). The complexity is exacerbated in electronic marketplaces, where the integration of AI creates a complex interaction of possibilities and difficulties for sustainable growth (Thamik & Wu, 2022).

In the domain of crime analytics, AI-based predictive policing and profiling methods pose significant concerns about bias, accountability, and the legal frameworks required to oversee its application (Oatley, 2021). The capacity of AI to sustain systemic prejudices and support discriminatory behaviors highlights the pressing necessity for thorough monitoring and ethical standards. Ultimately, although the potential of AI in crime prevention is significant, it is essential to thoroughly evaluate its social effects and ethical considerations. An intricate comprehension of AI's impact on psychological well-being and social behavior in urban environments is crucial for promoting a balanced approach to its deployment. This paper seeks to examine these characteristics, contributing to the continuing discussion on the proper incorporation of AI in urban settings.

2. Aim and Objectives

This research investigates how employing artificial intelligence (AI) for crime prevention affects people's psychological well-being and social behaviour in urban environments, particularly in multicultural populations, with a special emphasis on Northern Cyprus and Dubai. The purpose is to provide insights for urban planners and legislators on balancing technological innovations in crime prevention with inhabitants' psychological and social well-being at stake. Additionally, it aims to develop a comprehensive framework for designers to enhance future residential living by promoting community security, economic progress, global connectedness, and attractive destinations for travel, investment, and property ownership.

3. Methods

This study evaluates the psychological impact of AI on residents in Dubai and Northern Cyprus and its role in urban crime prevention through mixed methods. Data mining, geospatial analysis, and surveys provide insights into the spatial distribution of AI technologies and their effects on crime prevention, social behaviour, and psychological well-being. This combination of quantitative data from geospatial analysis and qualitative insights from surveys allows a thorough understanding of how AI addresses crime prevention, social behaviour, and psychological well-being in metropolitan cases. One significant limitation of this study was the difficulty in acquiring information from government sources in Northern Cyprus. Hence, the researchers had to rely on more traditional techniques of information collection, such as newspapers.

4. Architecture, Crime Prevention, Technology, and Psychological Well-Being in Defensible Spaces

Modern civilisation emphasises the importance of defensible spaces—concepts aimed at establishing personal boundaries and improving natural monitoring inside urban regions, contributing to crime prevention and psychological comfort. As defined by Edward T. Hall in “The Silent Language” (Hall, 1990), Defensible Space refers to the construction of territory in urban environments, which promotes safety through occupants' territorial claims and surveillance capabilities. Privacy is essential in territorial behaviour, influencing daily life, personal identity, and society's mental health (McAndrew, 2022). Historically, Jane Jacobs emphasised diversified land uses along residential streets to improve informal surveillance and safety (Perry, 2017), but Newman believed that architecture and environmental design have a significant impact on crime rates (Perry, 2013).

Territorial behaviour in culturally diverse urban public areas significantly impacts individual well-being by regulating relationships and ownership (Yeganeh & Kamalizadeh, 2018). Brown and Altman found a correlation between territorial displays and reduced incursion in urban environments (1983), thereby improving societal mental well-being. Architectural design substantially impacts psychological health by altering noise levels, spatial density, and accessibility to green spaces, all of which are necessary for urban mental wellness (Guite et al., 2006). Green urban solutions, such as green roofs and urban agriculture, improve mental health and promote positive social behaviours (Skorupski & Jabłońska, 2018).

Artificial intelligence has transformed architectural defensive spaces by improving surveillance and safety via real-time anomaly detection, facial recognition, and crime prevention (Innocente et al., 2023). However, research on AI-enhanced security systems, such as CCTV, has yielded mixed results in terms of anxiety reduction and crime deterrent, with multi-component crime prevention tactics proving more effective (Lorenc et al., 2013). Technologies like as CCTV, sensitive lighting, smart access cards, and facial recognition create concerns about privacy, cultural norms, and psychological well-being, despite their intended security benefits (Fabrègue & Bogoni, 2023; Perera et al., 2020). This conceptual framework emphasises the linked functions of these aspects in determining public perceptions of AI-powered monitoring in metropolitan areas. AI-enhanced surveillance is congruent with Routine Activity Theory, which states that by monitoring daily actions, crime prevention can be improved by reducing the likelihood of criminal activity (Cohen & Felson, 1979). This technique is compatible with Crime Prevention through Environmental Design (CPTED), in which technology such as CCTV and sensitive lighting help optimise urban design to dissuade crime (Jeffry, 1977). These tools are particularly crucial for data-driven urban planning, offering understanding of social behaviour patterns, which dictate security-focused policies without compromising accessibility in public spaces (Kitchin, 2016).

Psychologically, AI-driven surveillance might elicit a wide range of responses from city dwellers. The ubiquitous exposure of these technologies usually causes emotions of fear or worry, as people may believe they are constantly being seen, which can have an influence on their mental health (Koskela, 2000). Such technology also risks weakening social trust by creating an environment of inspection and control, which can limit genuine social interactions and undermine collective trust (Nissenbaum, 2009). These implications correlate with Michel Foucault's thesis on surveillance and behaviour change, which suggests that people adapt their behaviours under observation, influencing social dynamics in public settings (Foucault, 1995).

Furthermore, culture significantly impacts architectural design, psychological well-being, and communal values, impacting residents' feelings of safety and stability (Christiansen, 2016). According to research, worsening physical conditions, such as those found in low-quality neighbourhoods, are associated with a decreased sense of safety and social cohesion (Nasar & Jones, 1997; Ross & Mirowsky, 1999). Architectural techniques encouraging defended spaces and territorial behaviour increase security, community cohesion, and psychological comfort (Ferrari et al., 2019). Cultural norms also influence views of AI surveillance. Studies show that nations with collectivist cultural norms may see surveillance as important for communal safety, but individualistic cultures may prioritise privacy and consider such technology as intrusive (Hofstede, 1984). Individual privacy is frequently highly prized in Western cultures, however in more collectivist nations; public safety may outweigh privacy concerns, rendering AI surveillance less unacceptable (Dourish & Bell, 2007). Surveillance, on the other hand, can worsen social disparities by disproportionately targeting marginalised people, raising ethical concerns, and altering perceptions of the fairness of monitoring methods (Monahan, 2006).

The rapid growth of AI and VR in architectural design offers immersive crime prevention tools through Crime Prevention through Environmental Design (CPTED) and community-engaging tools to improve

planning collaboration (Benkovičová, 2022; Nee, 2024). While AI integration in built environments benefits surveillance and crime prevention, there are also worries about biases, privacy invasion, and mental health consequences (Clark, 2020; Gupta et al., 2023). Balancing AI's benefits with human psychological requirements is critical for a comprehensive approach that addresses public openness, community involvement, and well-being in urban areas.

5. Case Study: Dubai Versus North Cyprus

The research paper compares North Cyprus and Dubai's urban landscapes using various metrics, including population density, city size, land zoning restrictions, demographic composition, cultural background, high-rise buildings, defensible spaces, crime rates, and technology use. The demographic composition is assessed by comparing the number of permanent inhabitants (locals or nationals) to semi-permanent residents (students, labourers, and immigrants) and temporary visitors and tourists (see Table 1). It also examines the types of buildings, distinguishing residential, commercial, and mixed-use constructions, and compares crime rates and the effectiveness of crime prevention strategies. The study emphasises the importance of innovation in urban safety.

Table 1. Parameters of comparison between North Cyprus and Dubai (khan, 2024)

Parameters	Dubai	North Cyprus
Country	United Arab Emirates	Turkish Republic of Northern Cyprus (TRNC)
Size	35 km ²	3,355 km ²
Metropolitan Area	4,114 km ²	Around 80 km ²
Density	762.6 people / km ²	116 people / km ²
Cultural Background	Arab, Emirati, Asian	Turkish, Cypriot, Western
Locals	15%	98%
Other national	85%	2%
No. of High-rises	137	Approximately 43
Integration of AI	High	Low
Crime Index	Low	Low
Safety Index	High	High

6. Comparison Between Dubai and North Cyprus

Dubai and North Cyprus have both experienced significant historical developments, with Dubai growing from a small fishing village to a global powerhouse and North Cyprus undergoing cultural transitions and political challenges, reflecting its larger historical and geopolitical challenges.

Ancient Origins and Historical Background of Dubai

Dubai's history dates back to 3000 BCE, beginning as a mangrove swamp. Its cultural growth is predisposed by its strategic location and trading history, influenced by ancient civilisations. Dubai became part of the commercial networks of the Indus Valley, Mesopotamia, and Levant, fostering an economy based on fishing, pearl digging, and boat building. The Al Maktoum dynasty established Dubai's status in 1833, and the discovery of oil in 1966 accelerated its development into a global centre for commerce and tourism. Neighbourhoods such as the Al Bastakia Quarter recall Dubai's pre-oil era when it was home to wealthy merchants before becoming a hub for migrant workers (Ahmed, 2023; 2023).

Historical Tapestry of North Cyprus

Cyprus is an isolated and divided island in the Eastern Mediterranean Sea (2021). It is also known as ‘Kipros’ in Greek and ‘Kıbrıs Cumhuriyeti’ in Turkish. It is shared by Turkish Cypriots and Greek Cypriots (Oberling, 2007). The history of North Cyprus is inextricably linked with that of Cyprus as a whole. Nicosia is Cyprus Island's capital, and it was known in antiquity as Ledra and then Lefkosia, with a history spanning various empires and civilisations. It was a kingdom from the seventh century BCE until it became a bishopric in the fourth century CE, demonstrating its early ecclesiastical importance. The city was first ruled by the Byzantines, then by the Lusignan rulers, Venetians, Turks, and British, each of whom left an indelible stamp on its architecture and culture (Bowman et al., 2022).

Density of Dubai VS Northern Cyprus

The city borders are around 35 square kilometres, with the metropolis area totalling 4,114 square kilometres. The metropolitan area has a population density of around 762.6 people per square kilometre. The population of Dubai has increased substantially over the past five years. Dubai is one of the world's fastest-growing cities, expanding at 10.7% annually. Experts predict that the metropolis will grow rapidly by 2030, with a population of up to 3.4 million (DTC, 2024). The total population comprises 15% native residents and 85% expats. Asians comprise over 85% of the expatriate population (or 71% of the total population), with India accounting for 51%. Other Asians in Dubai are from Pakistan (17%), Bangladesh (9%), and the Philippines (3%). The city also has a sizable Somali population, with British expatriates constituting the majority of Western expats (2024) (see Figure 1).

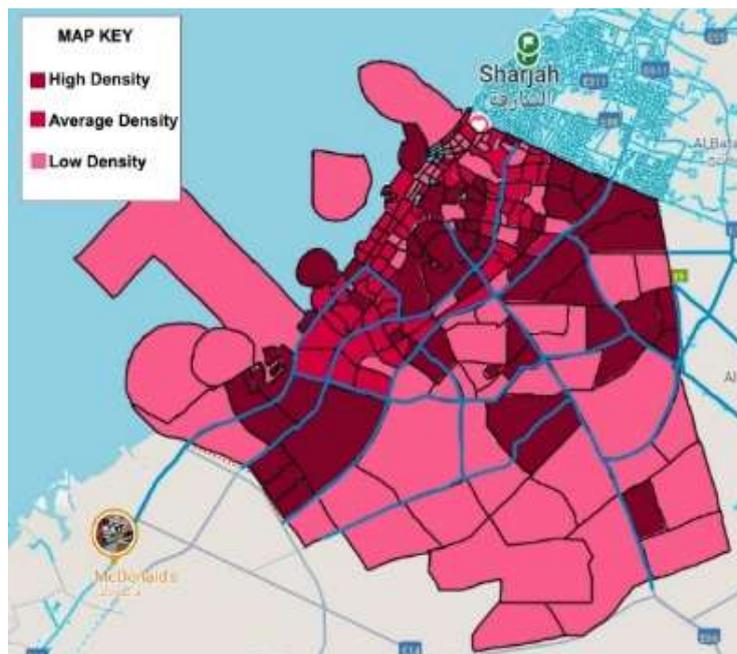


Figure 1. Population density of Dubai based on areas

Nicosia, Cyprus' capital city, is separated into two parts: north and south Nicosia. The Northern Nicosia city borders comprise approximately 472 square kilometres (182.14 mi²), whereas the metropolis area of north Cyprus comprises approximately 80 square kilometres. The metropolitan region has a population density of approximately 98 persons per square kilometre. Northern Nicosia has the largest population of around 61,378. Other notable cities are Famagusta, Kyrenia, and Güzelyurt. Northern Nicosia hosts thousands of international students annually, making it a cultural hub. Famagusta is the second most populated city, and immigrants make up a sizable proportion of the population, followed by Kyrenia and Güzelyurt. The population primarily comprises Turkish Cypriots, with Turkish nationals as the second-largest group. Other nationalities include British, Maronite, Europeans, Africans, and Asians (Hatay, 2017) (see Figure 2).

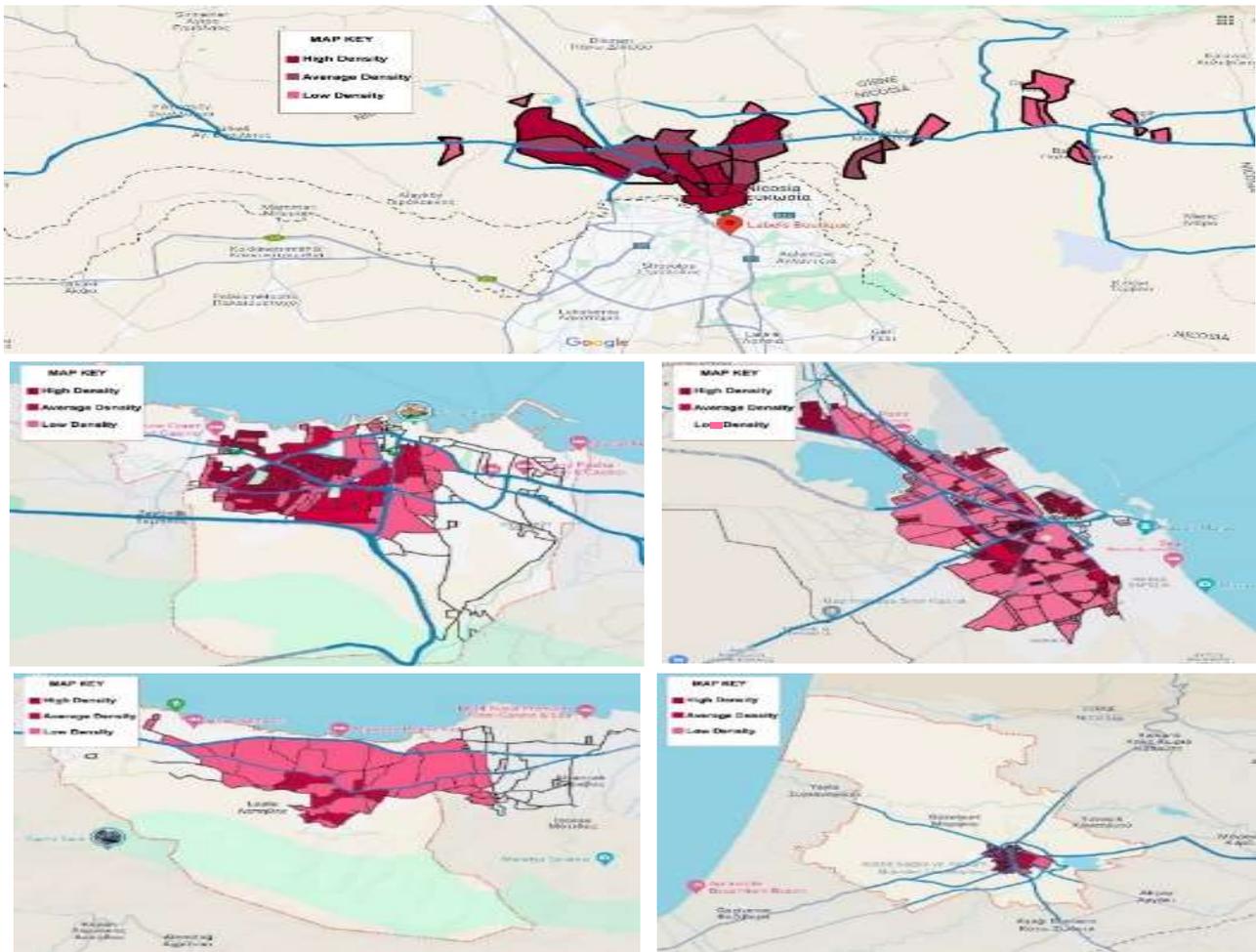


Figure 2. Population density in populated cities and towns of north Cyprus; Top (Nicosia), Top left (Kyrenia), top right (Famagusta), bottom left (Lapta), bottom right (Güzelyurt)

Land and Property Ownership in Dubai

Article 3 of Regulation No. 3 of 2006 outlines the musataha system, which allows expats to acquire floors and flats through four primary systems: ownership, Musataha, usufruct, and long-term lease. Abu Dhabi's Law No. 19 of 2005 permits foreign ownership in selected freehold regions, with the Dubai Land Department issuing title deeds and no age restriction on property ownership. The usufruct system grants a 99-year right to use the subject property and the amenities without alteration. (Dubai, 2024; Rules & Regulations, 2024). According to a market survey conducted in 2023, foreigners purchased 40% of all properties in Dubai last year, with that proportion predicted to rise to 50% by 2025. Al-Qabas reported that growing rental expenses and the attractiveness and stability of the UAE's economy are driving this trend. According to the Organized Crime and Corruption Reporting Project (OCCRP), the investigation identified three types of property owners: alleged criminals, individuals facing penalties, and political figures suspected of corruption around the world (Anand, 2024; 2023). Henceforth, due to their significant property ownership, expats significantly contribute to the country's cultural landscape and social atmosphere.

Land and Property Ownership in North Cyprus

Northern Cyprus has seen a significant increase in international real estate investment since early 2021, with over 7,000 permits granted by mid-2023. Despite restrictions, local loopholes allowed large-scale purchases, contributing \$1 billion annually to the region's GDP (Yanukovich, 2023; Quinzereis, 2023). According to a report published by Yeniduzen, Iskele residents face worsening living standards and

increased insecurity due to unrestrained construction and foreign population growth. Insecurity, increased entertainment venues, and violence exacerbate local concerns (Cheif, 2023; Sahin, 2023). For this reason, the government has changed the rules and regulations, and the TRNC has tightened property sales laws in response to an increase in international buyers and soaring real estate prices. Turkish government restricts foreign ownership of one flat or dwelling to 2.5 acres, requires 20 million euros for land purchases, and allows up to three properties. The measures aim to make housing more affordable and mitigate foreign interest (Atay, 2024; NCyprus, 2024).

Cultural Background of Dubai and North Cyprus

Dubai's history and culture are deeply rooted in Islamic and traditional Arab culture, significantly influencing its architecture, music, dress, cuisine, and lifestyle. However, the city's cultural identity has been shaped by the immigration of other ethnic groups, such as Iranians, Indians, and Pakistanis. Over the past five years, the influx of expatriates has led to greater cultural acceptance and assimilation. The percentage of Egyptians remains stable, while the number of other expatriate groups has decreased, as shown in Table 2 (GMI, 2024).

Table 2. Percentage of Expats and Emiratis from the past three years

Years / Nationalities	2021	2023	2024
Emiratis	11.48%	11.48%	11.50%
Indians	27.49%	27.49%	37.96%
Pakistanis	12.69%	12.69%	16.72%
Egyptians	4.23%	4.23%	4.23%
Filipinos	5.56%	5.56%	6.89%
Others	38.55%	38.55%	22.72%

Cyprus, the largest Mediterranean island, is home to Greek and Turkish Cypriot ethnic groups, each with distinct cultural, religious, and linguistic identities, blending centuries-old Mediterranean civilisations (Rosa, 2016). Cyprus' culture reflects this fusion of northern Turkish and southern Greek influences. The northern side, inspired by Turkish culture, combines a distinct Cypriot perspective, local customs, and a variety of other influences, including British and modern Western traditions.

High-rises, Building Typologies and Integration of AI

Dubai has 137 high-rise buildings, mainly along Sheikh Zayed Road, with most being mixed-use (Generalova & Generalov, 2018). These buildings can be categorised into four typologies: solo residential skyscrapers, residential blocks integrated into a single tower, single-function residential towers within a mixed-use compound, and residential blocks within a larger complex (Jung et al., 2021). CCTV cameras are installed in various types of facilities, including lifts, floors, elevators, parking spaces, and reception areas. Smart access cards can be used for elevator use. Camera intercoms are also present in each residential or office unit. Mixed-use developments in Dubai Marina use RFID Asset Management & Access Control for 24-hour security. In contrast, North Nicosia has 17 high-rise structures, mostly in the city centre, with two hotels and two bank buildings. High-rise buildings typically have 7 to 15 storeys and lack defined boundaries, with CCTV surveillance being the most common security technique. Famagusta has over ten operational high-rise buildings, while Kyrenia has seven high-rise buildings and townhouses or mid-rise buildings.

Crime and Safety Index in Dubai and North Cyprus

The Dubai Police report (see Table 3) shows a decrease in serious crimes from 2017 to 2023, with willful murder fluctuating minimally. Aggravated assault rates have increased, while rape rates have

remained stable. Robbery rates have fluctuated, with theft falling from 12.6 in 2017 to 6.5 by 2023. Abduction rates have risen, while grand vehicle theft and burglary rates have fluctuated. Drug-related offences have declined, and human trafficking remains consistent (Police, 2024).

Table 3. Major Crime statistics per 100,000 people (Police, 2024)

Major Crimes	2021	2022	2023
Willful Murder	0.2	0.3	0.2
Aggravated Assault	1.7	2.0	1.7
Rape	0.3	0.4	0.3
Robbery	1.6	3.1	1.5
Theft	8.2	9.9	6.5
Abduction	0.6	1.3	0.6
Grand Auto Theft	1.2	3.2	1.3
Burglary	6.2	5.0	4.6
Drugs	9.3	8.4	7.6
Human Trafficking	0.1	0.1	0.1
Cyber Crime	0.26	0.25	44

Cyprus ranks 29th in the European organised crime index and sixth in Southern Europe, with the TRNC contributing the most. Crimes like human trafficking, arms and fuel hauling, prostitution, drugs, fraudsters, and money laundering originate in the TRNC. Cyprus serves as a transit country for illegal arms trade, counterfeiting, and heroin, with foreign criminals controlling the drug industry (Editor, 2023). Table 4 summarizes significant crime data in North Cyprus, outlining the yearly number of recorded instances from 2021 to 2023, as gathered from public news sources (Khan, 2024). The data indicates significant variations in crime rates across many categories during the three-year span. For example, deliberate murder had a significant rise from 4 occurrences in 2021 to 21 in 2022, thereafter declining to 11 cases in 2023. This pattern indicates instability in violent crime, necessitating additional examination of the socio-economic or political causes influencing these fluctuations. Aggravated assault shown considerable fluctuation, with incidents rising from 20 in 2021 to 33 in 2022, then down to 9 in 2023. This pattern may suggest a transient increase in violent conflicts that later diminished, however the underlying causes for these fluctuations remain ambiguous. Rape cases increased dramatically from 36 in 2021 to a peak of 63 in 2022, before plummeting to only 1 occurrence in 2023. This significant decrease prompts inquiries on reporting methodologies and cultural influences on victim reporting, as such a steep dip is unusual in crime patterns.

Table 4. Major crime statistics in North Cyprus cases per year according to published news (Khan, 2024)

Major Crimes	2021	2022	2023
Willful Murder	4	21	11
Aggravated Assault	20	33	9
Rape	36	63	1
Robbery	No data	No data	2

Major Crimes	2021	2022	2023
Burglary	No data	No data	No data
Theft	No data	2	3
Abduction	27	No data	No data
Grand Auto Theft	No data	No data	2
Drugs	314	323	22
Human Trafficking	263	No data	7
Fraud	55	25	26

Kibris Postasi reports that societal destabilisation and increased violence and crime are attributed to an economic downturn, poverty, poor population management, and a decline in critical public services, particularly due to widespread poverty (Erturk, 2023).

Table 5. Five years data on safety and crime index in North Cyprus and Dubai (**Database, 2024**)

Cities	North Cyprus					Dubai				
Year	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Ranking / Safety Index	84/70.1	114/67.5	115/7.3	83/69.5	73/69.3	6/83	7/83.4	8/83.7	7/83.6	4/83.8
Crime Index	29.9	32.5	32.7	30.5	30.7	17	16.6	16.3	16.4	16.2

Table 5 juxtaposes the safety and crime indices of North Cyprus with Dubai during a five-year period, spanning from 2020 to 2024 (Database, 2024). The data indicates significant disparities in safety rankings and crime indices between the two areas. North Cyprus's safety rankings have varied throughout the years, reaching a high of 73 in 2024, reflecting a progressive enhancement from a low of 115 in 2022. In contrast, Dubai constantly had a high safety score, with a peak of 4 in 2024. This pronounced disparity highlights Dubai's efficacy in crime prevention and public safety initiatives relative to North Cyprus. Concerning the crime index, North Cyprus had a very constant rating, fluctuating between 29.9 in 2020 and 30.7 in 2024. Conversely, Dubai had a consistently reduced crime index during the time, reaching a maximum of 17 in 2020 and displaying little fluctuations subsequently, with a crime index of 16.2 in 2024. The data indicates that although North Cyprus has exhibited some enhancements in safety, it remains much less secure than Dubai, which continuously ranks better in safety and has a lower crime index. This underscores the necessity for improved safety protocols and crime mitigation tactics in North Cyprus.

7. Surveys Analysis and Discussion

Two surveys were conducted to investigate integrating AI technologies in homes and the impact of AI-driven crime prevention on mental health and social behaviour in multicultural urban environments, focusing on privacy concerns and future advancements. There were 60 participants in each questionnaire from Dubai and Northern Cyprus. The poll reveals that 86% of respondents are familiar with AI technology, particularly smart home gadgets like Alexa, Google Assistant, and Siri. Over half are familiar with smart security systems, robotic Hoover vacuum cleaners, and automated home hubs, reflecting a growing trend towards AI-powered products. Table 6 illustrates that 45.8% of respondents use AI-powered products in their homes, with smart speakers and robotic appliances being the most popular. However, 54.2% do not use these gadgets. Over the last decade, AI has become more useful and intelligent, with 76.3% indicating increased capabilities. User experience and ease of use have also increased, leading to increased acceptance and integration of AI in smart homes. Over the

past decade, AI in the home has become increasingly important for household administration and convenience. Popular AI technologies include voice-activated assistants like Alexa and Siri, home security systems, and smart home automation systems. However, there is a perception gap regarding the long-term societal implications of AI adoption, with 44.1% rating it as neutral and 28.8% stating it has a positive impact. Notably, more than three-quarters of respondents expressed concerns about privacy and data security in AI technologies, highlighting the complex interaction between AI technologies and societal institutions. Most respondents believe that AI technologies will continue to improve and integrate into daily life over the next 5-10 years, with 72.9% expecting AI to continue to improve and be integrated into daily life. However, only 29.4% predicted a decrease in voice-activated assistant usage, indicating the ongoing importance of AI technology in defining the future of automated homes.

Table 6. Experience with AI in Homes

Prompts	Details	Percentage
How familiar are you with artificial intelligence in home settings?	Smart home devices such as Amazon Alexa, Google Assistant, and Apple's Siri	86%
	Smart Thermostat like the Nest Learning Thermostat for optimising heating and cooling	36.8%
	Smart Security Systems such as facial recognition, motion detection, real-time video analytics	56.1%
	Robotic Vacuum Cleaners	54.4%
	Home Automation Hubs to control and automate various smart devices in your home, from lighting, temperature and security settings	45.6%
	Smart Appliances such as smart refrigerators, ovens, and washing machines	52.6%
Do you currently use any AI-powered devices or systems in your home? (e.g., smart speakers, AI-powered security systems, automated appliances)	Yes	45.8%
	No	54.2%
If yes, which AI devices or systems do you use?	Smart speakers (e.g., Amazon Echo, Google Home)	52.9%
	AI-powered security systems (e.g., Ring, Nest)	11.8%
	Automated home appliances (e.g., smart refrigerators, robotic vacuum cleaners)	52.9%
	Smart thermostats	17.6%
How do you foresee the role of AI in homes changing in the next 5-10 years?	Continuing to grow and integrate further into daily life	73.3%
	Stabilising with current technology	20%
	Decreasing in relevance	6.7%

Prompts	Details	Percentage
Which types of AI technologies do you think will disappear from homes in the near future, if any?	Voice-activated assistants	27.8%
	AI-powered security systems	5.6%
	Smart home automation systems	9.3%
	AI-based energy management systems	35.2%
	None	5.6%
Do you have any concerns about the future of AI in home environments?	Yes	65%
	No	35%
How concerned are you about the potential privacy risks associated with AI surveillance devices? With 1 being the least and 5 being the most.	1	5.1%
	2	5.1%
	3	35.6%
	4	32.2%
	5	22%
Are you aware that AI surveillance devices collect and store data such as video footage, facial images, and behavioural patterns?	Yes	78.3%
	No	8.3%
	Maybe	13.3%
How concerned are you about the security of the data collected by AI surveillance devices?	Very concerned	36.7%
	Somewhat concerned	56.7%
	Not concerned	6.7%
Do you trust the companies that provide AI surveillance devices to protect your data from unauthorised access or hacking?	Yes	8.3%
	No	48.3%
	Maybe	43.3%

Table 7 encapsulates popular impressions of AI surveillance devices in terms of intrusiveness and transparency. A notable 61.7% of respondents perceive these gadgets as potentially overly invasive, whilst just 11.7% expressed disagreement. Concerning the significance of comprehending the data processing of these gadgets, 55% indicated it is "very important," reflecting a robust need for openness. Furthermore, 46.5% of participants expressed discomfort regarding the extent of surveillance by AI technologies. The findings underscore prevalent apprehensions over privacy and the necessity for ethical considerations in the use of AI monitoring technologies.

Table 7. Intrusive Monitoring and Transparency

Prompts	Details	Percentage
Do you feel that AI surveillance devices in homes could become too intrusive in monitoring daily activities?	Yes	61.7%
	No	11.7%
	Unsure	26.7%

Prompts	Details	Percentage
How important is it for you to understand how AI surveillance devices process and use your data?	Very important	55%
	Somewhat important	40%
	Not important	5%
Have you ever experienced a situation where you felt uncomfortable with the level of monitoring by an AI surveillance device?	Yes	46.5%
	No	35%
	Maybe	18.3%

Table 8 underscores considerable public apprehension around AI surveillance. Concerning biases, 35.6% feel these technologies might result in discrimination, while 33.9% disagree and 30.5% remain uncertain. Concerns over data sharing are significant, with 50% expressing "very concerned" and 46.7% "somewhat concerned" about the dissemination of data to other parties. A significant majority (70%) advocate for more stringent controls on data sharing, whilst only 1.7% oppose, signifying a distinct desire for supervision. Furthermore, 78.3% endorse laws aimed at safeguarding privacy, indicating pervasive concern regarding the ramifications of AI spying. These findings emphasize a unified need for improved regulation and safeguarding of personal privacy.

Table 8. Discrimination, Bias, and Data Sharing

Prompts	Details	Percentage
Do you believe that AI surveillance devices may have biases that could lead to discrimination (e.g., based on race or ethnicity)?	Yes	35.6%
	No	33.9%
	Unsure	30.5%
How concerned are you about AI surveillance devices sharing your data with third parties (e.g., law enforcement, advertisers)?	Very concerned	50%
	Somewhat concerned	46.7%
	Not concerned	3.3%
Do you think there should be stricter regulations on how AI surveillance data is shared and used by third parties?	Strongly agree	70%
	Agree	28.3%
	Disagree	1.7%
	Strongly disagree	0%
Would you support legislation aimed at protecting individual privacy from AI surveillance?	Yes	78.3%
	No	5%
	Unsure	16.7%

Table 9 presents a demographic summary of the respondents. The age distribution indicates a majority of younger persons, with 63.3% falling between the 18 to 34 age range. In terms of gender, 56.7% of individuals identified as female, whilst 43.3% identified as male. The sample is divided between Dubai (46.7%) and North Cyprus (53.3%). A majority of respondents (56.7%) have lived in their present place for 1 to 3 years, whilst 25% have been there for more than 10 years. The cultural context indicates that a substantial majority (80%) consists of expatriates or immigrants, while just 18.3% are local or national inhabitants. The respondents exhibit ethnic diversity, with 50.8% identifying as Asian, 25.4% as Arab, and 20.3% as African. This demographic profile indicates a youthful, primarily expatriate population characterized by a diverse cultural amalgamation.

Table 9. Demographic Summary

Category	Details	Percentage
Age Distribution	Under 18	8.3%
	18-24	30%
	25-34	33.3%
	35-44	15%
	45-54	10%
	55-64	1.7%
	65+	1.7%
Gender Breakdown	Male	43.3%
	Female	56.7%
Place of Residence	Dubai, U.A.E	46.7%
	North Cyprus	53.3%
Residency Duration	Less than 1 year	5%
	1-3 years	56.7%
	4-6 years	3.3%
	7-10 years	10%
	Over 10 years	25%
Cultural Background	Local/National Resident	18.3%
	Expatriate/Immigrant	80%
	Student	1.7%
Ethnicity	Asian	50.8%
	Arab	25.4%
	African	20.3%
	European	3.4%
	Americas	0%

Table 10 depicts societal attitudes regarding AI technology in crime prevention. Awareness of these technologies is inconsistent, with 33.3% of respondents indicating considerable awareness, whilst 23.3% expressed complete unawareness. Merely 8.3% said that they were highly cognizant. Concerning the acceptance of AI in public criminal surveillance, the majority (48.3%) reported neutrality, whilst 35% indicated comfort. Nonetheless, a little segment (10%) indicated experiencing discomfort. When inquired about the efficacy of AI-driven crime prevention strategies, around 48.3% affirm that these methods improve safety, 8.3% dissent, and 43.3% remain undecided. The research indicates a varied degree of awareness and comfort, along with measured optimism regarding the safety advantages of AI in crime prevention.

Table 10. Perception of Artificial Intelligence (Surveillance, CCTV, Sensitive lighting, Smart Access Cards, Facial Recognition) in Urban Planning and Crime Prevention

Prompt	Details	Percentage
How aware are you of AI technologies being used in crime prevention in your city?	Not aware at all	23.3%
	Slightly aware	20%
	Moderately aware	33.3%
	Very aware	15%
	Extremely aware	8.3%
How comfortable are you with the use of AI in monitoring and preventing crime in public spaces?	Very uncomfortable	5%
	Uncomfortable	5%
	Neutral	48.3%
	Comfortable	35%
	Very comfortable	6.7%
Do you believe that AI-driven crime prevention methods (e.g., surveillance, predictive policing) make your city safer?	Yes	48.3%
	No	8.3%
	Maybe	43.3%

Table 11 analyzes the psychological and societal impacts of AI monitoring. Inquiries on the impact of AI surveillance on daily conduct in public areas yielded varied responses: 27.1% acknowledged little influence, whilst 23.75% noted substantial effects. Concerning privacy views, 56.7% said that AI integration did not affect their feeling of privacy, whilst 20% indicated an enhancement in privacy. Regarding neighborhood security, 73.3% saw the existence of CCTV cameras, while 41.7% reported increased feelings of safety attributable to AI technology, indicating an overall sense of security. Nonetheless, apprehensions over privacy implications remain, with 36.7% voicing reservations about AI-driven security solutions. To safeguard their privacy, 30.5% opted for obstructing visibility with curtains or screens, whilst a significant 22% expressed indifference towards privacy concerns. Ultimately, interactions in public settings seem predominantly unaffected for 78% of respondents, suggesting that although AI surveillance exists, it may not substantially influence social dynamics. The findings indicate a multifaceted link among AI spying, privacy issues, and social behavior.

Table 11. Psychological and Social Impact

Prompt	Details	Percentage
Do you think that the presence of AI surveillance affects your daily behaviour in public spaces?	Not at all	27.1%
	Slightly	16.9%
	Moderately	27.1%
	Significantly	23.75
	Extremely	5.1%
How has AI integration (Surveillance, CCTV, Sensitive lighting, Smart Access Cards, Facial Recognition) in	Greatly decreased	3.3%
	Decreased	16.7%
	No impact	56.7%

Prompt	Details	Percentage
urban spaces influenced your sense of privacy?	Increased	20%
	Greatly increased	3.3%
What security systems are currently in place in your neighbourhood?	CCTV Cameras	73.3%
	Security Guards	53.3%
	Access Cards	36.7%
	Automated Gates	36.7%
	AI-Based Surveillance	13.3%
	automated lights	1.7%
Do you feel more or less secure in your neighbourhood due to AI technologies?	Much less secure	3.3%
	Less secure	6.7%
	No change	40%
	More secure	41.7%
	Much more secure	8.3%
Are you concerned about the potential privacy implications of AI-driven security systems in your neighbourhood?	Yes	36.7%
	No	28.3%
	Maybe	35%
Which methods do you prefer to protect your privacy in a neighbourhood with AI surveillance systems?	Avoiding areas with CCTV cameras (e.g., choosing routes or locations that are less monitored)	16.9%
	Blocking windows and balconies (e.g., using curtains, blinds, or outdoor screens to prevent visibility)	30.5%
	Limiting use of smart home devices (e.g., turning off IoT devices when not needed to reduce exposure)	16.9%
	Opting out of neighbourhood data-sharing (e.g., refusing to connect certain devices to shared networks)	13.6%
	Not concerned about privacy (e.g., comfortable with existing surveillance and connectivity) I'm not concerned about privacy	22%
Has AI-driven crime prevention influenced your interactions with others in public spaces?	Strongly decreased interactions	6.8%
	Decreased interaction	8.5%
	No change	78%
	Increased interactions	6.8%
	Strongly increased interactions	0%

Table 12 shows the influence of AI technology on cultural and social norms. A plurality of respondents (53.3%) expressed neutrality on the impact of AI on cultural norms and traditions within their group, whilst 30% concurred and 10% dissented. Significantly, no respondents expressed significant disagreement, suggesting a widespread recognition of AI's existence without a robust consensus about its effects. Regarding intergenerational behavior, 41.7% of interviewees noted alterations attributable to AI integration, with 10% expressing strong agreement. In contrast, 43.3% expressed neutrality on this matter, indicating a divergence in perspective. These data indicate a preliminary acknowledgment of AI's impact on cultural dynamics, with numerous respondents uncertain about its importance.

Table 12. Cultural and Social Norms

Prompt	Details	Percentage
Do you believe that AI technologies have influenced cultural norms and traditions in your community?	Strongly disagree	0%
	Disagree	10%
	Neutral	53.3%
	Agree	30%
	Strongly agree	6.7%
Have you noticed changes in intergenerational behaviour (e.g., between older and younger generations) due to AI integration in urban spaces?	Strongly disagree	0%
	Disagree	5%
	Neutral	43.3%
	Agree	41.7%
	Strongly agree	10%

The results from the first survey indicate that while AI technologies are increasingly prevalent in homes for convenience, security, and automation, concerns about privacy, security, and intrusive surveillance persist. Respondents strongly support stricter privacy controls and legislation, highlighting the need for ethical monitoring and public trust in AI use. The second survey reveals a complex relationship between AI-powered crime prevention technologies and public opinion, with many respondents being neutral or negative about their impact on security, privacy, and social behaviour. Urban planners must balance technology with societal concerns.

8. Conclusion

This study explores the relationship between artificial intelligence (AI), crime prevention, architectural design, and psychological well-being in urban contexts, focusing on Dubai and Northern Cyprus. The research highlights the importance of a balanced approach, where technology developments in AI-driven security match cultural customs, social norms, and residents' psychological health. The study finds that integrating AI into urban safety significantly impacts inhabitants' psychological well-being and social behaviour. In Dubai, AI-driven crime prevention measures, such as surveillance systems, have increased security while raising concerns about privacy and potential over-surveillance. However, traditional security measures are heavily relied upon in Northern Cyprus due to a lack of AI integration. The study also highlights the cultural differences between Turkish Cypriot and Emirati dwellings, with Turkish Cypriot houses incorporating more outward-facing balconies and wooden overhangs and Emirati homes valuing isolation and family privacy. These discoveries emphasise the necessity of policies that strike a balance between AI innovation and psychological safety, advocating for community-informed surveillance and privacy safeguards in multicultural urban environments.

Conflict of Interest: The authors have no conflict of interest.

Acknowledgements:

The authors' deepest appreciation goes to all the participants who assisted us in conducting this research project.

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