Digital Technologies and Urban Governance in Action: Modena's Neighbourhood Watch Groups

Niccolò Morelli, Junior Assistant Professor of Sociology, Department of Political and International Sciences, University of Genoa, Italy.

niccolo.morelli@unige.it

Abstract[1]

In the realm of urban governance regarding security, digital technologies have surfaced as a catalyst for transformative change. With the proliferation of NWGs and their rapid adoption of digital platforms, a new wave of citizen engagement in co-producing urban security has surfaced. This article explores how digital technologies have enabled and accelerated a co-production approach to urban security, showcasing an example in the city of Modena. Interviews carried out with NWG coordinators, local law enforcement, and municipal executives have shed light on the collaborative efforts and challenges in this new era of urban governance. This research also reflected on NWG digital interactions, crowd-sourced data, and potential issues related to privacy, discrimination, and hate speech. Moreover, this paper uncovers a complex sociological landscape, highlighting the bonds that NWGs create among citizens.

Despite its successes, this paper does not avoid discussing critical issues and underestimations, such as the private nature of the platforms used for signalling and the lack of direct control by local authorities. These issues, if left unaddressed, could lead to potential conflicts between NWG members, non-members, and public authorities. This paper contributes to the literature

[1] Special thanks to Antoine Courmont for having accepted the idea of this working paper and for the inputs provided. Thanks to Tommaso Vitale for his careful reviews and great discussions. Thanks also to Anna Capretta, Guixia Hu and Sara Del Pezzo for their contribution to the empirical research process.

on the use of digital technologies in urban governance concerning security by emphasizing the potential of digital Neighbourhood Watch Groups in engaging citizens at the neighbourhood level. It also examines challenges that require careful exploration to achieve a harmonious balance between security, citizen engagement, and governance in evolving urban landscapes.

Introduction

This working paper is part of a sociological comparative research program focusing on neighbourhood activism related to security. Specifically, the research aims to understand the motivations and the transformative power (Citroni, 2022) of the Neighbourhood Watch Groups. To achieve this, the study investigates diverse urban contexts in Italy, where this phenomenon has seen recent proliferation, quickly gaining momentum. Hundreds of municipalities have embraced this movement, with over 75,000 active families participating in groups, as the Italian Neighbourhood Watch Association reported. Neighbourhood Watch Groups (NWGs) are defined as a form of community crime prevention that aims to contribute to safety and the quality of life in residential areas (Lub, 2018; Sager, 2005; Schneider, 2007). NWGs typically operate thanks to residents patrolling the street and signalling suspect activities, urban decay, abandoned objects, and training citizens to detect frauds (Lub, 2018) In Italy, these groups exist thanks to digital technologies, as physical patrolling is not permitted, predominantly through WhatsApp chats, but have a strong connection with the urban context, mainly by road. NWGs are the typical case study to embrace two main trends in digital technologies applied to urban security: the co-production of urban security with the engagement of citizens, and the treatment of crowd-sourced data. While not the most technologically advanced domain, it is particularly intriguing due to the digital citizen engagement in co-creating security alongside law

enforcement and public administration. This collaboration presents sociological challenges and complexities that need careful exploration.

Lessons learnt from empirical research carried out in the urban municipality of Modena will be shown. Modena is a middle city in the centre-north of Italy, half an hour from Bologna. It has 93 NWGs. 15 have been randomly selected based on neighbourhood socio-economic conditions, to have a good heterogeneity. Coordinators of the selected groups, local police officers, the mayor of Modena and municipal executives responsible for the collaboration with NWGs have been interviewed, resulting in 19 interviews[2]. Moreover, chats of the selected NWGs have been observed during the empirical research, to look at crowd-sourced data, interactions among members, and possible critical issues related to privacy, discrimination and hate speech.

This working paper shows how digital technologies have enabled and accelerated a co-production approach to urban security promoted by national and local governments. Co-production existed well before the rise of digital technologies, but thanks to them, a new wave of participation has spread in different contexts. Moreover, it shows how the digital co-production approach has led to vigilantism, here referred to as the practice from the public to generate crowd-data through photos, videos, and signalisation that could be used for further investigations (Nhan, Huey & Broll, 2015). A specific emphasis is placed on recognizing the urban bonds fostered by these groups among citizens. NWGs manage to establish connections among individuals with similar social backgrounds who perceive security as a unifying factor, yet they fail to represent the diverse components of the neighbourhood. Community-building activities, such as conviviality, are seldom organized within the neighbourhood, resulting in a limited ability to attract individuals beyond existing circles. On the other hand, while one

[2] The empirical research has been carried by Anna Capretta, Guixia Hu e Sara Del Pezzo, University of Padua Italy, and Niccolò Morelli, University of Genoa, Italy between November 2022 and February 2023.

recognized risk of crowd-sourced data is the potential for a large volume of reports, requiring considerable time to sift through and distinguish valuable ones from repetitive or irrelevant ones, the approach advocated by Modena appears effective. This involves training the members and coordinators of Neighbourhood Watch Groups and decentralizing the initial filtering process to the group coordinators. However, it also emerges how a key effect for effective signalling is the possibility of having feedback from police officers, which is not granted by all types of applications. Moreover, it emerges how the private nature of the used platform for signalations (mainly WhatsApp), and the lack of direct control on each group from local police officers is a major issue, but currently underestimated by local authorities.

This paper enriches the debate on possible applications of digital technologies in the co-production of urban security in urban governance processes, showing a successful example in the city of Modena. However, it also shows some criticalities that seem to be underestimated or unsolved that could lead to potential processes of conflicts between members of the NWGs, between members and non-members, and between members and public authorities.

The Implementation of Digital Technologies in Urban Security

Digital technologies permeate every facet of human life. Phones, computers, smartwatches, and tablets envelop our daily existence, reshaping our interactions at work, in personal relationships, and with public administration. The latter, at various levels, is progressively integrating digital technologies in the interactions with citizens. On one hand, this aims to enhance efficiency in certain processes, thereby reducing waiting times and partially compensating for staffing shortages. On the other, it facilitates improved citizen-administration relationships, enabling citizens to engage more extensively by providing feedback,

information, and other materials that empower public authorities to respond promptly to urgent situations.

The applications of digital technologies in urban governance processes are diverse and span from formalizing administrative procedures through online forms, identifying tax evaders using artificial intelligence, optimizing urban traffic management through algorithms, enhancing healthcare appointment scheduling, to addressing security concerns. The widespread adoption of digital technologies in urban security has ignited a highly polarized debate. This is not surprising, as the realm of security has historically sparked fervent discussions between two legitimate concerns. On the one hand, a desire to enhance prevention and comprehensive territory control (Abdullahi, 2021). On the other hand, a need to safeguard privacy and prevent discrimination in law enforcement and security practices (O'Malley & Smith, 2022). Finding a delicate balance in this context is inherently challenging, particularly considering how the theme of security becomes a battleground during election campaigns, often leading to partisan instrumentalization.

Digital technologies in the realm of urban security encompass a range of applications, including video surveillance, facial recognition through artificial intelligence, prediction of imminent criminal events, and co-production of urban security involving citizen engagement through digital Neighbourhood Watch groups or safety issue reporting apps (Cowen et al., 2020; Laufs, Borrion & Bradford, 2020; Morelli, 2023). The incorporation of digital technologies in urban security represents a significant turning point in public order management. On one hand, it has facilitated a pervasive presence throughout the city, even with reduced physical patrols. Conversely, it has opened avenues for citizen involvement in security management. Video surveillance, for example, has broadened the scope of law enforcement oversight, allowing for more effective monitoring of urban areas. Nonetheless, a physical police presence on the streets has historically been regarded by the public as a more potent deterrent against crime and a

significant contributor to perceived safety (van der Berg, 2006). Public administration has massively invested in making video surveillance ubiquitous. In Italy, for instance, tax incentives are provided to those who invest in video surveillance systems, allowing direct connection with law enforcement control centres. The unspoken reality is that these technologies have essentially masked the chronic shortage of personnel within local and national law enforcement agencies (van Brakel, 2021). Those most affected are the officers closest to citizens, as the neighbourhood policing figure and certain local police stations have vanished. Moreover, these are the consequences of a violent public debate on rising insecurity in cities, which is not supported by empirical data (Nobili, 2015).

Another application of digital technologies in urban security is facial recognition. This technology is being extensively developed in the United States (Cowen et al., 2020) and China (Roussi, 2020), among others, fuelled by substantial public funding. These systems enhance crime predictive capabilities by accessing photo databases to identify potential clusters of individuals with criminal records, and based on this data, predict the likelihood of future offenses (Cowen et al., 2020). In China, this has been taken further, with plans for assigning a score to citizens based on their public behaviour (Calzada, 2022). These surveillance and artificial intelligence systems are increasingly prevalent, carrying significant ethical and moral implications. For example, they tend to be used in socioeconomically vulnerable contexts, and several authors have warned how these systems tend to replicate a form of "racialized urban control" (Cowen et al., 2020; Parra Saiani, 2020) camouflaging it under the assumed objectivity of algorithms.

The European Parliament is striving to fill regulatory gaps, sometimes overshadowed by actions taken by individual member countries, to provide a comprehensive framework for the regulation of artificial intelligence. At present, the European Parliament leans towards prohibiting any form of biometric data recognition in public spaces, whether obtained directly

or from existing databases (Raposo, 2022). However, the risk is that in the face of a public-opinion-driven threat, these regulations might be swiftly brushed aside in the name of more efficient urban surveillance.

Another form of development in digital technologies within the realm of urban security has been the emergence of apps designed by or in collaboration with public administration for citizens to report crimes, suspicious incidents, sources of degradation, or neglect to local police and institutions. These apps range from those specifically designed for example for women (such as Shaw) to the use of WhatsApp chats or Facebook groups by resident groups, such as NWGs, or those designed for the public (such as Where are U, BSafe). These tools vary significantly from one another.

In some instances, there are apps directly promoted by Public Administrations. These apps can be categorized into those explicitly designed for urban security purposes and those that offer a range of services, including urban security. Experimentations in this field across Europe are countless, varying in structure, coordination, success, and effectiveness. Some apps are developed by private entities and can be categorized into those created by private actors and "sold" to public administrations with the specific goal of enhancing citizen participation in urban security management, while others are implemented by private entities with broader purposes. An example to highlight is the use of WhatsApp chats, which have seen widespread adoption for communication and organization among NWGs and beyond. These groups seek to reduce crime opportunities by increasing residents' awareness of the possible suspect dynamics occurring in their neighbourhoods, through street patrolling and reports to police officers of suspect activities (Brewer & Grabosky, 2014; Greene, 2000). These programs also carry certain risks, including the potential for ethnic profiling by neighbourhood watch volunteers (Lub, 2018), the emergence of a moral order among NWG members that is not

shared by all residents, the protection of individual interests over collective ones (Jones, 2006), and the risk of vigilantism, marked by excessive reporting due to its ease (Lub, 2018).

The spread of digital technologies in the realm of urban security highlights several points of significant relevance in the sociological and public discourse. It raises the issue of a new relationship between citizens, police, and public administrations in terms of information gathering and response to reports, within a renewed logic of co-production of urban security, facilitated by the crucial role played by digital technologies. Moreover, it raises concerns about which role invests the data collected from digital technologies with the help of citizens, and how institutions relate to these technologies, in matters of privacy, and control of the digital technology.

To better show how these points have relevance on an empirical level, I will present here the results of research on Neighbourhood Watch groups present in Modena. This empirical research is the starting point of a comparative project on the phenomenon of neighbourhood watch programs in Italy and, more broadly, on grassroots mobilization in urban neighbourhoods between the digital and physical dimensions. The city of Modena represents a medium-sized Italian city with a population of 184,000 residents. Situated in central-northern Italy, in Emilia Romagna, it is half an hour's drive from the regional capital, Bologna. Modena is an affluent city, ranking in 2022 as the fifth Italian city for per capita income, just after Bologna. The production system in the Modena area is diverse and highly structured, encompassing industries ranging from mechanics, particularly automotive, to ceramics, food, fashion, and biomedicine. In these fields, it not only stands as one of the most significant points of production in Italy and internationally but has also specialized in high quality and luxury. The choice of the city of Modena as the site of our research is due to its relevance in the Italian context in terms of the implementation of security policies. Having to face an increased sense of insecurity among residents, which has also been registered on a national and international

level (Pratt, 2020; Eurispes, 2023), the municipal administration has been implementing innovative security policies since the 1990s. Modena also holds the primacy of the stipulation of the first memorandum of understanding about security, which was signed in 1998 by the mayor and the local prefecture and which started a collaboration between the municipal administration and local police forces (Protocollo di intesa tra la Prefettura di Modena e il Comune di Modena, 9th February 1998). The local administration soon created a dedicated office, called the Law and Security Office (Ufficio Legalità e sicurezze), which cooperates with the Italian Forum for Urban Security. The activism of the city of Modena on the issue of security has been carried out by centre-left local governments because the city has been ruled only by centre-left parties and coalitions since the end of the fascist dictatorship in 1945. This is quite relevant, since in Italy security policies have been outlined mainly by rightist parties until recent times (Crocitti, 2022). As Nobili points out, the specificity of security policies implemented by leftist local administrations lies in the fact that they move from a more traditional, situational approach to embrace social, integrated and community-based forms of prevention, which will be discussed below (Nobili, 2015; 2020). These policies tend to combine the active role of local institutions with civic engagement and co-protagonism of citizens: the case of NWGs offers a clear example of this policy design.

Since 2017, 93 neighbourhood watch groups have been established, with more than two thousand registered members. The Neighbourhood Watch project in Modena originated at the initiative of the municipal administration, led by Mayor Gian Carlo Muzzarelli since 2014. It materialized in 2017 with the signing of a memorandum of understanding between the Municipality and the Prefecture. Right from the start, there was enthusiasm among residents who embraced the project launched by the Municipality. By the end of 2017, 20 groups were registered, and this number increased to 29 in 2018 and 31 in 2019. With the onset of the Covid pandemic, the phenomenon seemed to slow down its expansion, with 7 new groups in 2020, 3

in 2021, and the same in 2022. Neighbourhood Watch Groups in Italy are a peculiar example of a co-production approach to urban security, relying principally on digital technologies. These groups use WhatsApp chats to organize on the level of the road of residence or their proximity, signalling potential threats, urban decay and misfunction of street furniture. The digital relevance of this phenomenon is very clear, as in Italy physical patrolling is not permitted by the law.

Co-production of urban security through digital technologies

Security has long been administered and guaranteed by state institutions, following a Hobbesian perspective of dividing tasks between the sovereign and the people (Giupponi & Arcuri, 2022). This arrangement persisted for centuries, and when citizens have engaged in security matters in the past, it often led to punitive and repressive behaviours that have had negative historical implications in Europe as the example of "squadracce fasciste" in Italy (Franzinelli, 2019).

However, during the period of increased urban crime in North American cities from the 1960s to the 1990s, local and national authorities began emphasising citizen participation as a responsible duty for ensuring urban safety and ameliorating its perception (Brewer & Grabosky, 2014). This has led to the adoption of a crime-reducing community-based approach (Husain, 1990), supported by two normative tools: incentives for adopting security measures like video surveillance, and the establishment of diverse community organizations (ibidem), particularly in areas afflicted by high rates of officially reported crime (Warner & Wilcox Rountree, 1997). Scholars, worried about possible negative implications, suggested that the co-production of security needed to be addressed towards social cohesion and not divisiveness (Brewer & Grabosky, 2014), while also highlighting how its negative implications could

threaten privacy, interpersonal trust and the rights of minorities (Grabosky, 1992). Private video surveillance is today well spread in many urban contexts and as earlier mentioned, sustained directly from national and local authorities, even if issues on privacy are still major concerns. Nonetheless, while video surveillance stands out as the most prevalent form of digital urban security measure embraced by private citizens, the co-production of urban security necessitates a more proactive role from residents, often manifested through resident groups (Parks et al., 1981). It's the case of NWGs. Neighbourhood Watch programs originated in the U.S. in the 1960s and rapidly spread across the country in the 1980s. Then, it gained popularity in the UK and became present in most European countries. These groups emerged long before the widespread adoption of digital communication technologies, reflecting the concept of co-producing urban security that predates the integration of these technologies. NWGs are a true example of the co-production approach, intended for the "involvement of the direct participation in the production of a collective good by those who will benefit from its production" (Vitale, 2010, pag. 63). Residents active in these groups actively patrol their assigned area, usually where they reside, reporting suspicious activities or situations, dangers, perceived urban decay, and training residents on possible urban concerns (Lub, 2018). However, digital technologies have enabled a new reaffirmation of this model in recent years, simplifying their activities and coordination and, in some cases, digital technologies represent the *conditio sine qua non* for the birth of Neighbourhood Watch Groups. In countries like Italy, public institutions have always been reluctant to grant citizens a proactive role in promoting security, due to historical memories of fascism. It was only in 2009 that the idea of participatory security promotion gained ground, leading to co-creative security policies with citizen involvement. Law 94/2009, and relative norms, also known as "Decreti Maroni" -from the name of the Minister of Interiors at that time, during the fourth Berlusconi mandate as Prime Minister - marked the implementation of this co-production. The law didn't enable

expressively physical patrolling and remarked the passive characteristics of these activities, limited to reporting events that could disrupt urban security. Nonetheless, episodes of physical patrolling performed by activists of the Northern League (the political formation of Minister Maroni), called *ronde leghiste,* raised huge concerns in the public debate (Scalia, 2012p). However, within a short span, this experiment failed for several reasons. An important one is related to the Constitutional Court's rejection of physical street patrolling (Cortese, 2010), which certified the risks of this policy. Moreover, this norm didn't emerge from a bottom-up mobilization, but more from a personal desire of the Minister of Interior Roberto Maroni and the inner circles of the political party of the Northern League. Indeed, the sporadic groups of *ronde* that emerged at that time were all directly traceable to the political area of the Northern League and unable to gain support from a broader public. Speaking with administrative functionaries that followed the process at that time, emerged an act of boycott inside the administrative apparatus of the Minister of the Interiors, who wrote the policy in a way that would have resulted in less appeal for possible volunteers. In particular, the norm specified that these groups could not be constituted by more than three people, couldn't benefit from any form of funding and reimbursement, and could not be linked to sport-supportive groups, political formations or movements in general (Caruso, 2022). The mixture of these several reasons ended in a complete flop, well represented by the fact that one year after the law had been approved, only one group was officially constituted in Italy (Repubblica, 2010). In response to the failure of street patrols, Neighbourhood Watch Groups emerged along with the first national Neighbourhood Watch Association, inspired by similar experiences in the United States and other parts of Europe (Nobili, 2013). The spread of these groups, in a relatively short space of time, more than 3,000 groups in 15 years, shows how they had a very different impact related to the previous *ronde*. This can be attributed to a clearer separation of these groups from political parties and increased support from local administrations, which have devised ways to

legitimize these groups while also establishing clear rules and objectives (ibid). The activities were more limited compared to those in the United States and the Netherlands, primarily due to the prohibition of physical street patrolling (ibidem). This is where digital technologies play a fundamental role. In 2009, the crucial period of Facebook's development in Europe, Neighbourhood Watch Groups began forming on Facebook groups, but at that time with limited institutional recognition. Subsequently, with further security packages issued in 2017 by Minister Minniti, the subscription of agreements between institutions and citizens to promote participatory security led to a new wave of associative participation in the security field, but without permitting physical patrolling. Although various platforms for organizing Neighbourhood Watch Groups have been identified in the literature, such as Facebook, Telegram, and WhatsApp, (Lub, 2018) it is the latter that has gained significant popularity among group members. It is important to emphasize that the digital aspect of this phenomenon holds greater importance compared to other forms of neighbourhood activism, such as Social Streets, where neighbours started on Facebook groups and tend to meet in the physical street fostering conviviality (Morelli, 2019). For example, the Protocol of Understanding between the Prefecture and the Municipality of Modena in 2021 specifies in Article 2 that "citizens belonging to 'neighbourhood watch groups' must engage in mere observation regarding events and circumstances occurring in their residential area...; any form of active intervention or substitution of citizens for tasks assigned by current laws to the Police Forces, including any individual or collective modes of territory patrolling, pursuit, collection of personal data, or investigation, is strictly prohibited." Neighbourhood watch groups in Italy, therefore, resemble Neighbourhood Warden groups more than Neighbourhood Watch groups present in the rest of Europe, where physical presence on the streets is allowed (e.g., Netherlands and England) (Nobili, 2022).

From the outset, these groups took the form of WhatsApp chats for interaction among participating citizens. In the case of Modena, the municipality played a fundamental role, in ensuring orderly access to these groups for participants. However, coordinators, identified by resident group participants, had the autonomy to add interested residents and to manage the conversations inside the groups. They are still "obliged" to report new members to the Municipality and encourage residents to register with the Municipality as group members. However, this process doesn't always occur, as testified by some coordinators. Reasons cited include a perceived excessive bureaucratic burden on coordinators, especially with tasks considered superfluous by them. Currently, to become a member of a group, one must register on a dedicated website belonging to the Municipality of Modena. On this website, through the Public Digital Identity System (SPID), the interested person can register to the NWG closest to his home or work activity. The coordinator is informed about the new entry and oversees adding this person to the WhatsApp group. The local police train coordinators and members to make pertinent reports and manage sensitive data. The forms of the involvement of citizens clearly show how NWGs in Italy, even in a just digital dimension, imply a co-productive approach in the terms suggested by Vitale (2010), as citizens are actively required to produce a collective good, perception of security, through engagements, enabling themselves to benefit from it.

The choice of communication platform is not only determined from the grassroots level but is often suggested by the administrations themselves. A significant example is that of the Emilia Romagna Region, the first Italian region to formulate regional guidelines for supporting neighbourhood watch groups in 2013. In the guidelines, local administrations are advised to "provide the technical tools to manage contact networks (e.g., WhatsApp groups)." The reference to the platform within the guidelines is reiterated multiple times, although not exclusively indicated. The Municipality of Modena, in implementing its experience, follows

the guidelines and provides instructions for the proper use of the chat, explicitly citing WhatsApp as a communication tool. The rationale behind choosing the WhatsApp platform is pragmatic, linked to its widespread usage among almost the entire population, resulting in a familiarity that facilitates communication and exchange among residents. Among instant messaging apps, it is undoubtedly the most immediate, versatile, and daily-accessed one, at least during the development period of Neighbourhood Watch Groups in Italy. From the guidelines provided to participating citizens of Modena's Neighbourhood Watch, it can be read: "Often the medium used, because it is more widespread and practical, is the WhatsApp chat." The method suggested by the Emilia Romagna Region, and implemented at the local level in Modena, involves having WhatsApp chats for residents who choose to get involved at a local level, coordinated by one or more individuals recognized by all members. In these groups, referring to a specific street or a well-defined and not overly large territorial portion, there are no Local Police officers. The coordinators are part of another WhatsApp group, which also includes law enforcement officers. This group serves to coordinate the various experiences and share information potentially useful to all groups. The choice of this platform presents two significant points: on one hand, among the reasons for the effectiveness of these groups, the ease of information exchange among group members is key. On the other hand, public administrations are not able to exert direct control over the type of information posted or the tone used in the groups. The responsibility is entrusted to the group coordinator, who must filter accurate reports from misleading ones, and verify that published content never violates privacy or creates controversies, gossip, insinuations, or hate speech. However, public administrations are not unaware of the risks, and therefore often accompany other reporting tools, such as the case of Modena's "SegnalaMo" app, within the regional software circuit for reporting issues in Emilia Romagna Rilfedeur, where individual citizens can report various problems to the Municipality: from road maintenance to traffic and transportation, from social issues to security

and abandoned vehicles. It is not the only application. Throughout Italy, there are numerous experiments (just to name a few: Iosegnalo, APPunto, Comuni-chiamo, etc.). However, such apps do not seem to be particularly appreciated and used. In interviews conducted in the context of Modena, both the local police and the coordinators of Neighbourhood Watch Groups confirmed that only a small number of reports by coordinators were made through the Segnala Mo app. The reasons are multiple. On one hand, the immediacy and speed of reporting guaranteed by WhatsApp chats are highlighted, while Segnala Mo implies a series of operations before correctly reporting the issue. Additionally, it is noted that citizens appreciate the feedback they receive from operators in WhatsApp chats, which does not occur in the Segnala Mo app. The fact that coordinators can verify when the police operator receives and views the message or receives a simple response message is highly rewarding for coordinators, who feel useful and heard and can give immediate feedback to the member who has done the signalization. However, providing feedback is not always simple: "Especially when reports concern criminally prosecutable crimes, perhaps related to theft or drug dealing activities, the feedback we can give is rarely immediate, or sometimes we cannot provide it at all due to confidentiality. This can create some frustration for citizens; it's a mechanism we need to improve." (Local Police Modena, 2).

Public administrations are grappling with a challenging dilemma: whether to employ digital platforms that they cannot fully control but guarantee the effectiveness of these groups or to advocate for their digital applications, risking limited usage.

Which role for the creation of urban bonds?

Co-production of urban security could also imply creating, re-creating, or strengthening urban bonds among neighbours. In the realm of co-production processes, numerous authors have highlighted the potential for these processes to cultivate social connections that extend far

beyond the specific objectives of the co-production endeavour (Bookman, 2014; Gheduzzi et al., 2021). In the specific case of Neighbourhood Watch activities, the organization through digital platforms, through WhatsApp groups, could represent an effective tool to organize activities and promote sociality among neighbours. Even if physical patrolling is not permitted by law, it is still possible to organise social dinners, and informal encounters, to know each other and to foster conviviality, using digital technologies as the first encounter platform and to better organize meetings. However, from the interviews conducted, conviviality rarely emerges. This is due to several factors. First, most of the coordinators interviewed were born and raised in Modena, which means they already have several connections in the city and do not feel the need to connect with other people for sociality. Second, some coordinators want to keep clear the boundaries of the group, underlining how the Neighbourhood Watch Group is strictly linked to signal potential threats for the neighbourhood. In this case, most of the coordinators have suggested, or created, a secondary WhatsApp group dedicated to sharing information about neighbourhood activities and events, suggestions, opinions, and opportunities. This distinction is also promoted by the municipality and the local police officers who, even if supporting conviviality among neighbours, are worried by the possibility of having chats overcrowded by messages that could impact the efficiency of signals of potential dangers.

However, the lack of a neighbourhood community outside digital platforms creates some dynamics that should be further explored. First, the relationship inside the groups is mostly vertical: a member signals something, which is then reported by the coordinator to the local police officers. Sometimes other members intervene to confirm the signallations, sometimes not. This is, of course, the correct procedure when it comes to possible crimes, but sometimes reports concern neglect, abandonment, or dirtiness. In these cases, Neighbourhood Watch Group members could also initiate neighbourhood collective care processes, promoting

participation and mutual bonds. Moreover, in the long run, this could weaken the Neighbourhood Watch Groups which, without a strong community attachment, could see less of the necessity to remain and participate in activities.

There are still some exceptions. Among the Neighbourhood Watch Groups selected, a few promoted some moments of conviviality, for example going out for a dinner together or organizing an *aperitivo*. It is quite marginal in neighbourhood watch activities, but the necessity to create more links of attachment between members is recognized by many coordinators. Those who have promoted moments of conviviality are usually happy about the outcomes, even if some groups expected more participation. However, among the coordinators is recognized how the sanitary situation of the last years has complicated the possibility and the desirability of promoting convivial events.

Even if inside the groups there isn't much conviviality, coordinators have discussed with the local police officers the possibility of promoting a neighbourhood festival and in October 2022 four festivals were organized, in the respective administrative sub-unity of Modena municipality. Neighbourhood Watch Groups have been actively involved in the organization. Activities promoted spanned from info about NWG's activities, road education, tips to avoid thefts and robberies, and food and beverages to socialize with neighbours. Many people were involved and participated in these activities, however, coordinators underlined how this event didn't reach the aim of creating closeness among neighbours. The alleged reason is that the dimension of the administrative district was too detached from the dimension of the Neighbourhood Watch Groups. To better give an idea about the numbers, the municipality of Modena is divided into 4 main administrative neighbourhoods. The number of residents for each recognized neighbourhood spans from 24,000 in the historical centre, to 61,000 in Neighbourhood 3, the southeast periphery of the municipality. These are units in which residents and even Neighbourhood Watch Groups do not recognize themselves in terms of

identity. The detachment between the dimension of the road and the relative neighbourhood watch group compared to the area of the neighbourhood festival has resulted in the impossibility of fostering the participation of a single neighbourhood watch group.

What changes in the relationship between local authorities and citizens?

The development of Neighbourhood Watch Groups through digital technologies has massively changed the relationship between local police authorities and citizens. In the case of Modena, coordinators have a direct connection with the local police officer in charge of supervising their neighbourhood or the overall neighbourhood watch program. Some local police officers even gave their telephone numbers to be in closer contact with coordinators. In certain ways, it is a Copernican revolution for citizen-police relations. To understand the reasons for this change in relationship, the words of the Mayor of Modena are very explicative "Neighbourhood Watch Groups in this city started in a moment where there was tension on security as the perception of insecurity was quite high. In that moment, we have looked for co-protagonism. We have used the existing laws and created a model that could permit citizens on one side to blow off some steam but also to contribute directly. Moreover, we decided to keep an institutional approach, giving to the group's organizational freedom, as they are not constituted as associations but as informal groups, but to keep them under the institutional umbrella, to govern the process" (Mayor of Modena). In the past, there has been a standardized and very formal procedure to address police officers, which has contributed to a certain detachment between citizens and police officers. This also led police officers to feel isolated, and the new relationship established thanks to the emergence of NWGs enabled them to exit from this isolation. Coordinators of NWGs are conscious of this change and value it as an important step towards them, both in terms of acknowledgement and responsibility towards NWGs. This

digital collaboration made possible by neighbourhood watch has helped to bridge the gap in relations between citizens and local police that had been created in recent years. Moreover, the cuts in funding to local police forces and law enforcement agencies at the national level had led to the closure of many cases of neighbourhood police experiments, the main point of reference for citizens, with a strong network of relationships on the ground.

This new relationship between NWG members and local police officers goes well beyond the matters of security: “The coordinators become daily interlocutors, but I would not argue for the primary objective of security, but more for signalling urban decay, misfunctioning etc. This is also because we have to say that real security threats are quite scarce.” (Local Police Modena, 2). The evaluation of this new relationship is overall positive from both sides, sometimes more from the side of local police officers and local institutions: “It’s a good project, it gives satisfaction, citizens thank you and it allowed us to make assemblies in the neighbourhoods” (Municipal Office of Security). On the side of citizens, sometimes emerge also a bit of frustration about the differences between expectations and reality, especially when signals do not end with feedback. Moreover, coordinators complain that through the app and with the registration of each member on the online website “The relationship is becoming more and more bureaucratic. You must consider that most of the coordinators are over 50, and they also want certain degrees of freedom” (NWG coordinator, 1).

From the interviews emerges a multi-faceted relationship between police officers, and, in general, the local administration, and NWGs. On one side, it is an instrumental collaboration, related to certain priorities recognised and acknowledged by the local administration: security, urban decay, and misfunctioning. It is also an instrumental way to find positive solutions to a collective answer to insecurity and urban fear. It is something not so different from what has been promoted in recent years by Italian local public administration with the collaborative pacts (patti di collaborazione). With this normative tool, citizens can take care of public space and

ameliorate general liveability. However, in the case of NWGs, the relationship doesn't stop at a performative logic, in the sense that NWGs must perform certain actions or maintain certain standards. Indeed, as the major and the Municipal Officer of Security argue, this relationship was something necessary in moments of tension and in general gave mutual recognition to NWGs and local administrations. It is a mutual necessity, which raises a collaboration, even if the distinction of roles, responsibilities and powers is very clear and distinct and there is no space for a reconfiguration of these. In other words, the general trend of local administrations to dismiss closer contact with citizens, due to several lack of funds in the last 15 years, has led to a higher perception of abandonment by citizens in matters of security. The newly established relationship between citizens and local authorities, with the birth of NWGs has solved a problem perceived by the public administration, namely less trust towards institutions in matters of security, and citizens or the possibility to participate in the co-production of urban security, which is not merely related to crime but also urban decay and misfunctions.

How to treat data: a new relationship between police and citizens

Digital technologies also pose significant challenges to public administrations in terms of bottom-up production of crime and security data. The sources from this perspective are numerous: private video surveillance systems and the possibility of documenting potential criminal and/or suspicious behaviours with a phone. Public administrations are required to carefully consider these new sources, in terms of reliability, origin, and feedback, as mentioned earlier.

Regarding video surveillance systems, this is an information source that law enforcement agencies already extensively use today. They often have an integrated "census" of all the placements of video surveillance services they can access during their investigations. This

paragraph, however, will address other forms of bottom-up production of crime and security data that have been observed in the research on Neighbourhood Watch programs in Modena. Digital technologies enable the documentation, storage, and dissemination of potentially criminally relevant incidents. However, there are various challenges to consider.

On one hand, there's the possibility of sharing a video of a criminal phenomenon in inappropriate places, risking the creation of vigilante justice, discrimination, and hate behaviours. Moreover, this type of data can be manipulated to convey certain types of messages that are completely distorted from what happened. When shared on social media, often detached from its context, it risks spreading false but difficult-to-distinguish messages. Law enforcement agencies sometimes find it impossible to trace back to the primary source of information and the original content, thus not knowing how to interpret it. Additionally, an interesting question arises about why people nowadays prefer to publish evidence of a crime on social media instead of reporting it to the proper authorities. What does this mean? Is it a lack of trust in institutions? The belief that the community is more effective than law enforcement?

In this context, Neighbourhood Watch represents an interesting case of bottom-up production of security data. All members are trained to make detailed and accurate reports, respecting individuals' privacy as much as possible. Reports are shared within the group, filtered by administrators, and then forwarded by the coordinator to the police. All members know when they should directly contact emergency services (e.g., 112), when to file a regular report, and when to submit a report to the group. However, there's a risk that some reports are made to seek punishment rather than help. For instance, reporting a homeless person sleeping on a bench might lead to seeking their removal, rather than considering assistance policies to help them out of a challenging situation. This could be due to several reasons. On the one hand, there is the possibility that as digital co-production has been created only on issues related to security,

these signallations are done through the only functioning communication channel with the public administration. On the other hand, it could be the result of a form of imposition of one's moral order, which consists of avoiding any form of undesirability in one's neighbourhood, treating it as a form of deviance, as observed in the most affluent urban neighbourhoods (Paugam et al., 2017).

During interviews, police inspectors confirmed that reports coming from Neighbourhood Watch Groups are taken into greater consideration due to the training members receive, which lends these reports a higher level of reliability. They generally express satisfaction with the nature of these reports, even though they sometimes touch on issues related more to neighbourhood liveability and well-being that fall beyond the direct competence of law enforcement. This ambiguity arises because the boundaries between degradation, negligence, incivility, and criminality are blurred in people's perception, leading them to report various issues. At the same time, this new data source sometimes worries law enforcement, as they fear not being able to give proper attention to all reports, potentially creating false expectations.

The significance of feedback also emerges strongly. As mentioned earlier, the possibility for citizens to see that a police officer has viewed their report and provided a response message is highly valued and gratifying for the citizen. However, police officers complain that they are not always able to give proper feedback to citizens, to keep certain privacy on investigation activities, to protect citizens from possible vengeance and because investigations could last several months there is a big gap of time between the signallation and the effective answer to the raised issue.

In summary, digital technologies have undeniably increased the possibilities of obtaining new sources of security and crime-related data. However, these data run the risk of being misused, and seeking social punishment, when instead other types of interventions might be necessary.

Law enforcement has found Neighbourhood Watch programs as an effective way to educate citizens about reporting, thus granting these sources a higher level of reliability and more immediate feedback. This feedback is the most appreciated form of compensation for citizens, motivating them further in their activities.

Conclusions

This article explores the adoption of digital technology by urban governance and its impact on the co-production of security perception. Specifically, it examines how the establishment of Neighbourhood Watch Groups through WhatsApp chats has engaged citizens in reporting criminal incidents, hazards, malfunctions, and perceived deterioration, contributing to an enhanced sense of security. This technology has also fostered a novel form of collaboration involving citizens, local law enforcement, and public administration, revitalizing a relationship that had waned over time due to reduced institutional presence and heightened citizen insecurity.

However, the introduction of these digital groups has raised certain concerns. Firstly, it pertains to the sensitivity of information shared on a private digital platform, outside direct law enforcement oversight. Additionally, questions arise about the management of data generated by these technologies and how to provide feedback to citizens regarding their reports.

The primary contribution to the ongoing discourse on integrating digital technologies into urban governance for security lies in demonstrating how readily accessible and commonplace technology has fostered effective collaboration. This collaboration is viewed positively by both participating citizens in Neighbourhood Watch Groups and the promoting institutions, as it improves the relationship between institutions and citizens and enhances the overall perception of security. Nonetheless, it is essential to recognize that these groups may not ensure genuinely

inclusive participation and may not be representative of all residents in the urban areas where they operate.

The primary limitation of this study is its focus solely on the case of Modena. A comparative study, examining a city where neighbourhood watch has emerged as a more pronounced bottom-up phenomenon, could offer diverse insights into how the relationship between citizens and between citizens and public administration evolves using digital technologies in urban security.

Bibliography

Abdullahi, H. I. (2021). *Smart Cities, security and urban crime control. Theories and Perspectives.* PS Opus Publications, Delhi.

van den Berg, L. (Ed.). (2006). *The safe city: safety and urban development in European cities.* Ashgate Publishing, Ltd, Farnham.

Bookman, S. (2014). Brands and urban life: Specialty coffee, consumers, and the co-production of urban café sociality. *Space and culture*, 17(1), 85-99.

van Brakel, R. (2021). How to watch the watchers? Democratic oversight of algorithmic police surveillance in Belgium. *Surveillance & Society*, 19(2), 228-240

Brewer, R., & Grabosky, P. (2014). The unravelling of public security in the United States: The dark side of police-community co-production. *American Journal of Criminal Justice*, 39, 139-154.

Calzada, I. (2022). Citizens' data privacy in China: The state of the art of the Personal Information Protection Law (PIPL). *Smart Cities*, 5(3), 1129-1150.

Caruso, C. (2022). Oltre l'ordine pubblico: la sicurezza partecipata, oggi. In Giupponi, T. F., & Arcuri, A. (eds.). *Sicurezza integrata e welfare di comunità*. Bologna University Press, Bologna, 57-78.

Citroni, S. (2022). *L'associarsi quotidiano. Terzo settore in cambiamento e società civile*. Meltemi editore, Milano.

Cortese, F. (2011). Continua la razionalizzazione della disciplina statale in materia di sicurezza urbana: la Corte costituzionale e le «ronde», tra ordine pubblico e disagio sociale. *Le Regioni*, 39(5), 1001-1018.

Cowen, D., Mitchell, A., Paradis, E., & Story, B. (Eds.). (2020). *Digital Lives in the Global City: Contesting Infrastructures*. UBC Press, Vancouver.

Crocitti, S. (2022) Le politiche di sicurezza urbana in Italia, in Pitch, T. (ed.), *Devianza e questione criminale. Temi, problemi e prospettive*, Carocci editore, Roma. 207-223.

Eurispes, *La criminalità: tra realtà e percezione*, Catanzaro, Rubbettino Editore, 2023.

Faraguna, P. (2011). Report on the Italian Constitutional Court's Case Law. January 2010–December 2010. *Revus. Journal for Constitutional Theory and Philosophy of Law/Revija za ustavno teorijo in filozofijo prava*, (16), 127-138.

Franzinelli, M. (2019). *Squadristi: protagonisti e tecniche della violenza fascista 1919-1922*. Feltrinelli Editore, Milano.

Gheduzzi, E., Morelli, N., Graffigna, G., & Masella, C. (2021). Facilitating co-production in public services: empirical evidence from a co-design experience with family caregivers living in a remote and rural area. Health Services Management Research, 34(1), 21-35.

Giupponi, T. F., & Arcuri, A. (eds.) (2022). *Sicurezza integrata e welfare di comunità*. Bologna University Press, Bologna.

Greene, J. R. (2000). Community policing in America: Changing the nature, structure, and function of the police. *Criminal justice*, 3(3), 299-370.

Husain, M. S. (1990). *Neighbourhood watch and crime: An assessment of impact*. Police Foundation, London.

Jones, B. R. (2006). Virtual neighbourhood watch: Open source software and community policing against cybercrime. *J. Crim. L. & Criminology*, 97, 601.

Laufs, J., Borrion, H., & Bradford, B. (2020). Security and the smart city: A systematic review. *Sustainable cities and society*, 55, 102023.

Loveluck, B. (2020). The many shades of digital vigilantism. A typology of online self-justice. *Global Crime*, *21*(3-4), 213-241.

Lub, V. (2018). Neighbourhood watch: Mechanisms and moral implications. *The British Journal of Criminology*, 58(4), 906-924.

Morelli, N. (2023). Digital technologies in global cities: the entanglement of inequalities, opportunities and social mobilizations. *Partecipazione & Conflitto*, 16(1), 194-201.

Nhan, J., Huey, L. and Broll, R. (2015), 'Digilantism: An analysis of crowdsourcing and the Boston marathon bombings', *British Journal of Criminology*, 57: 341–61.

Nobili, G.G. (2013), La prevenzione comunitaria: dalla sorveglianza informale al vigilantism o, in S. Benvenuti, P. Di Fonzo, N. Gallo, T.F. Giupponi (cur.), *Sicurezza pubblica e sicure zza urbana*, 175-188, Franco Angeli, Milano.

Nobili, G. G., (2015), Evoluzione delle security policy: 20 anni di sicurezza urbana in Italia, in AA.VV., *Dalla (in)Sicurezza dei Luoghi alla Sicurezza dei Legami*, 178-197. FDE Institute Press, Mantova.

Nobili, G. G., (2020), Le politiche di sicurezza urbana in Italia: lo stato dell'arte e i nodi irrisolti, *SINAPPSI - Connessioni tra ricerca e politiche pubbliche*, vol. 2, pp. 120-137.

Nobili, G.G., (2022) La sicurezza partecipata: il coinvolgimento dei privati. L'esperienza della Regione Emilia-Romagna. In Giupponi T.F & Arcuri A. (edited by). *Sicurezza integrata e welfare di comunità*, 177-196, Bononia University Press, Bologna.

O'Malley, P., & Smith, G. J. (2022). 'Smart'crime prevention? Digitization and racialized crime control in a Smart City. *Theoretical Criminology*, 26(1), 40-56.

Parks, R. B., Baker, P. C., Kiser, L., Oakerson, R., Ostrom, E., Ostrom, V., ... & Wilson, R. (1981). Consumers as coproducers of public services: Some economic and institutional considerations. *Policy studies journal*, *9*(7), 1001-1011.

Parra Saiani P. (2020) "Verso un welfare state digitale? L'intelligenza artificiale tra politiche sociali e apparati di controllo", *la Rivista delle Politiche Sociali*, 4: 237-254.

Paugam, S., Cousin, B., Giorgetti, C., & Naudet, J. (2017). *Ce que les riches pensent des pauvres*. Le Seuil, Paris.

Pratt, J. (2020). L*aw, Insecurity and Risk Control. Neo-Liberal Governance and the Populist Revolt*, Palgrave Macmillan, London.

Raposo, V. L. (2022). The use of facial recognition technology by law enforcement in Europe: a non-orwellian draft proposal. *European Journal on Criminal Policy and Research*, 1-19.

Roussi, A. (2020). Resisting the rise of facial recognition. *Nature*, 587(7834), 350-354.

Sagar T. (2005) 'Street Watch: Concept and practice', *The British Journal of Criminology* (45) 2005, afl. 1, p. 98-112.

Scalia, V. (2012). The context of decentralised policing or local squads? The case of the Italian "Ronde". *International Journal of Sociology and Anthropology*, 4(2), 38-47.

Schneider, S. (2007). *Refocusing crime prevention: Collective action and the quest for community.* University of Toronto Press, Toronto.

Vitale, T. (2010). Regulation by incentives, regulation of the incentives in urban policies. *Transnational Corporations Review*, *2*(2), 35-45.

Warner B.D. , Wilcox Rountree P. (1997), Local Social Ties in a Community and Crime Model: Questioning the Systemic Nature of Informal Social Control, *Social Problems*, Volume 44, Issue 4, Pages 520–536, https://doi.org/10.2307/3097221

Sitography

Repubblica (2010). Last access 22/09/2023. https://www.repubblica.it/politica/2010/09/12/news/il_flop_delle_ronde_padane_dopo_un_anno_ce_n_una_sola-6989688/?rss