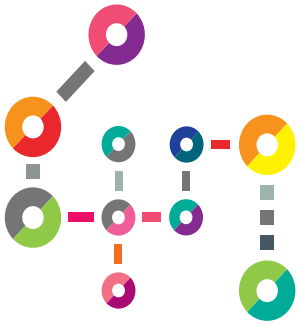
CRIME ALERTING APPLICATIONS
A way to better understand local realities?



In urban security civic technology can be used to promote an integrated security model, in which security is co-produced with citizens. Citizens are often involved through social media in their various forms: platforms, networks, applications or messaging services. This factsheet explores mobile crime alerting applications, which themselves exist in different forms and for different purposes. Some aim to collect information on criminality levels in a city and offer general guidance to victims. Others focus on specific crimes, such as hate crimes or violence against women. Some offer a direct communication channel to local police services or victim support instances while others offer peer to peer support.

EMPOWERING AND INFORMING VICTIMS

Crime alerting applications can help and empower victims in different ways. By clarifying their legal rights and providing information on victim support services and possible next steps, these apps allow victims to make an informed decision regarding their options. They can help them navigate what can be an otherwise confusing network of services available to them, empowering them to take control of the situation.

The applications can also empower vulnerable groups, such as members of the LGBTQ+ community, to seek support for what they have experienced and to report it, if not formally to the police then at least anonymously and/or through the app, providing an important first step in the reporting process before going to the police.

LOCAL COLLABORATIONS FOR TAILORED RESPONSES

The *Cutting Crime Impact (CCI) Project* project aims to enable police and relevant local and national authorities to reduce the impact of petty crime and, where possible, prevent crime from occurring in the first place. The idea is to support local security actors in conceiving human-centred solutions that are tailored to the specific needs of those who will ultimately benefit from these solutions.

The development of a solution starts with an effort to understand all angles and iterations of the problem. In addition to empowering and supporting victims, crime alerting applications can be a source of information on types of crime that are often underreported. They can enlighten realities that are not reflected in official crime statistics. This raises a number of questions: Who should be informed of the alerts - the local authorities or other instances, such as victim support services? How can local security actors work on joint responses with other services?

A second line of inquiry is concerned with the impact that such applications and platforms can have on public policy. As a source of information, crime alerting applications can help authorities better understand the experiences of different groups in the community and tailor their public policies to real needs. It can also foster responses which include all relevant stakeholders in the elaboration of solutions. Mobile applications can allow for partnerships with the private sector and integrate their expertise in building databases on underreported crimes.

FEELINGS OF INSECURITY

One of the *Cutting Crime Impact (CCI) Project* focus areas is concerned with measuring and mitigating feelings of insecurity. Such feelings are complex and have multiple facets: worry, anxiety, fear of crime, to name only a few. They all impact the individual and collective well-being. As such, feelings of insecurity will inform a population's political and economic behavior as well as their behavior in, and use of, urban public spaces.

Crime reporting applications can reflect both dark numbers of crime and feelings of insecurity. This is especially true for applications that are tailored to support specific population groups in situations where they might encounter danger or feel unsafe. In such situations, accessibility to applications can furthermore positively impact feelings of insecurity.

LEGAL, SOCIAL AND ETHICAL IMPLICATIONS

1. Data bias / stigmatising neighbourhoods

There is a risk that the data collected from crime alerting applications can be used in ways that lead to neighbourhoods being stigmatised. For example, the idea of using alert locations to create a 'heat map' can involve biases of various types.

Triggering an alert can be based on the user's subjective feelings of insecurity rather than whether they are objectively in danger. These subjective feelings are projected onto neighbourhoods; what one person finds inspiring and important another person may find unsafe and frightening[1]. Furthermore, such perceptions of insecurity may be informed by conscious or unconscious bias, leading to discrimination in the data collection. A potential lack of diversity in an app's user-base may exacerbate this issue, and there is a danger that the sample size of users is too small to be used as a basis for general conclusions.

This data bias can further have harmful financial consequences for neighbourhoods and their residents. Home and other real estate owners may face decreasing property values if potential buyers are put off by high levels of reported feelings of insecurity in the neighbourhood, and shops and other local businesses may lose potential customers.

[1]Oskar Josef Gstrein and Gerard Jan Ritsema van Eck, 'Mobile devices as stigmatizing security sensors: the GDPR and a future of crowd-sourced broken windows', [2017] International Data Privacy Law 1, available online at https://academic.oup.com/idpl/ advance-article-abstract/doi/10.1093/idpl/ipx024/4759191

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2. Protection of users

Applications that rely on an open community of users to receive and respond to alerts can run the risk of being infiltrated by people with bad intentions. They are then able to monitor alerts and can for example access the location of a victim in distress, putting them at further risk. Furthermore, not everyone may be ready to receive the kind of content that they could receive during an alert. There is also a risk that open communities can give certain members a superhero complex, particularly in the case of women's personal safety. This can be very dangerous for both the person in distress and the person responding.

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3. Data protection

There are several data protection risks associated with crime alerting apps. Firstly, anonymous or pseudo-anonymous users could have their data combined with other datasets and records, potentially meaning that a user may not remain unidentifiable when they want to[2]. The existing legal frameworks, notably the EU Data Protection Framework, fail to address evolving data analytic techniques that could lead to such compromising of anonymity. There is also a concern that such applications contribute to a subtle erosion of privacy by technology, as their tracking of users' location can be argued by some to be a form of surveillance.

[2] Ibid., p9

LOCAL PRACTICES

App-Elles

App-Elles is a free personal safety mobile application against gender-based violence, developed in 2015 by Resonantes, a French non-profit organisation that tackles violence against women and girls. The app has two main purposes: to provide help and resources and to provide an alert functionality. The alert functionality allows users to create a closed network of up to three trusted contacts, known as 'protectors', and allows a user to be a 'protector' for up to three people.

The user can trigger an alert when they feel the need; this sends an alert to their 'protectors', who are led to an alert-monitoring screen. The protectors are provided with as much information as possible, including a live audio recording, live geolocation and a way for the user to qualify the alert. With the agreement of the user the alert can also be routed to nearby security desks, such as a police station, who can monitor and dispatch alerts through a dedicated interface. The app can also provide resources tailored to the user's location, such as helpline numbers, weblinks, emergency services numbers and information on specific subjects such as rape and sexual assault. It also has an interactive map of useful places such as shelters, police stations and hospitals

AppElles can be a useful first step in victims getting help, when many do not feel able to report what has happened to them to the police and are not able to call either a trusted contact or the emergency services as a situation unfolds. The data from when an alert is triggered is kept for 15 days and can be downloaded by the alert emitor, providing proof of what happened to them that can be shown to the police.

RightsApp

RightsApp is a mobile application for IOS and Android operating systems, developed by the Institute of Law and Technology at the Universidad Autónoma de Barcelona and funded by the EU's Justice Programme. The main purpose is to empower EU citizens when they become victims of crime. The researchers responded to the following problems that crime victims tend to face:

- A lack of awareness regarding victims' rights
- A lack of legal knowledge making it difficult for them to decipher the legal documents encoding their rights
- Victims' rights are scattered across different documents and are therefore difficult to find
- Documents outlining victims' rights are in different languages that are not always the victim's own; this is especially the case if the person is abroad

The app is multilingual (available in Spanish, English, Italian and Portuguese), and provides information from a range of different sources. It models the Spanish legal framework, using a questionnaire developed with crime law experts to determine what category the situation of the user falls into and if this grants them special rights under Spanish law, as is the case with violence against women, domestic violence and terrorism, among others. It is based around three scenarios, offering a direct connection to the emergency services, collating information regarding victims' rights and enabling users to search for entities such as police stations, support centres and consulates, by city, country and type of entity.

The app collates information in the simplest way possible, through categorisation and simplifying the language used, making it easy for users to navigate and understand. The developers also collaborated with different local and regional actors to ensure that they had the relevant information. However, the questionnaire does not contain all of the crimes in the Spanish legal framework but rather a selection of them, and users tend to select the crime of their perception even if it is not the primary crime that took place. This makes it difficult to collect a list of crimes.

Riga Municipal Police App

In 2015 the Riga Municipal Police (RMP) launched a new mobile application aimed at improving communication with residents. It enables users to communicate with the police by sending photos, videos and information. The app also has a GPS feature helping users find their nearest police station, a list of emergency phone numbers and a chat function to ask the police questions. When a report is made it automatically is entered into the police Electronic Event Journal, and once it has been verified as relevant it is forwarded to a police patrol. Reports that are not within police jurisdiction can be forwarded to the appropriate service. The expectation was that citizens would use the app to inform police of crimes and serious situations, however it is often also used to report on menial issues such as wrong parking, noise and even the length of a neighbor's grass. However, despite lockdown its use has been growing, so the RMP will continue to use the app.

FLAG!

In April 2020, the French NGO FLAG!, which fights against discrimination against the LGBT community, launched with the support of the French government a mobile application by the same name. It is tailored to victims of and witnesses to anti-LGBT discrimination, discrimination against HIV-positive people or domestic violence within LGBT couples. The app allows them to report them anonymously and be directed towards appropriate sources of support and next steps. When reporting an incident the user has to state whether they are a member of the general public or an official, as well as the type of incident that occured, so that they can be directed towards the most relevant/appropriate sources of support and/or next steps. The app can be used to report both offline and online incidents, and whilst the user cannot submit personal details of the person responsible they can specify what category they fall into (eg family member, classmate, stranger, police officer).

Reports are geolocalized and dated, enabling a real-time map of reported incidents to be created, so that local authorities target public policies on these issues at the areas deemed most risky according to the map. The organisation, in partnership with the Fondation Jean Jaurès, will create a scientific committee to produce an annual report on anti-LGBT discrimination, discrimination against HIV-positive people and domestic violence within LGBT couples.

Considerations when developing and deploying crime alerting applications

- Law enforcement agencies and local authorities need to ensure that the way in which they use any data shared with them from crime alerting apps does not stigmatise communities and places. As such data can be based on subjective feelings of insecurity, it can be useful for security actors to use it to better understand these perceptions, and perhaps analyse the built environment rather than the people who live and work in the neighbourhood.

- Crime alerting applications must be adapted to the local context, and made accessible for a range of users. This includes ensuring that the app is easy to navigate, and that it is available in a range of languages..

- Due to the problems posed by an open network of users, crime alerting applications should instead use a closed community of trusted contacts and thus ensure that the alert data is not openly available.

- There must be an understanding that statistics based on the data provided by crime alerting applications are not evidence-based. Rather, they can add an additional layer to our understanding of the local security situation and the feelings of insecurity of different groups. Putting into place a protocol that allows for a nuanced analysis of the data could prevent misinterpretations.

- Collaboration with local authorities and security and prevention actors ensures that the applications offer relevant contact details and services. They can also bring greater visibility to existing victim support services.

Amsterdam's online reporting system - Transparency as a prerequisite for public trust

The city of Amsterdam offers a service to its residents whereby they can report an issue in the public space to the municipality via an online reporting system. When they first put this system into place, the user could choose a type of issue from a drop-down menu and the responsible city department would then take over. The city eventually realized that users would often choose the wrong category, which would lead to delays in tackling the problem. They decided to have people simply describe the issue in a few lines. An algorithm is then employed to recognize keywords and categorize the complaints and determine which department should take care of the issue.

This can fast-track processes and remove some aspects of human error, however there is also the risk that the AI-based system will learn from biases in the reports, which will then be looped into future identification and processing of data. In order to ensure that this is not the case and to show the public how this evaluation process works, the city uses an AI register. The latter describes the datasets that the algorithm uses, how the data from the reports is processed, whether there is a risk of discrimination, what form human oversight takes on and what other types of risk management are in place.

READING SUGGESTIONS

- 'Mobile devices as stigmatizing security sensors: the GDPR and a future of crowd-sourced broken windows' : this paper was published in 2017 by Oskar Josef Gstrein and Gerard Jan Ritsema van Eck and analyses the legal, social and ethical implications of certain types of crime alerting apps.

- *The Cutting Crime Impact (CCI) Project* published two factsheets on the state of the art in community policing, its practices in EU cities and the legal, social and ethical impacts of this approach. The project also produced two factsheets on predictive policing.

- Following a webconference on *Civic technologies in urban security: what cooperation between citizens, police and local authorities?* Efus published a factsheet on civic technology that outlines how civic technology can be used in the field of urban security; what impact it has on community policing practices; legal, social and ethical implications; local practices; and challenges and recommendations.

- In July 2021, the EU Agency for Fundamental Rights published its report on Encouraging hate crime reporting - The role of law enforcement and other authorities. The report explores why bias-motivated incidents are often underreported and ways in which reporting can be facilitated. Chapter 3 looks at diverse reporting options, including online forms, live chats and social networks.