

Mobile application for reporting animal abuse

Aplicativo para fiscalizações de denúncias de maus-tratos aos animais

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ABSTRACT

The growing concern for animal welfare and rights underscores the importance of institutions dedicated to combating crimes against animals. As society becomes more aware of the ethical treatment of animals, these institutions play a crucial role in enforcing laws, raising awareness, and promoting animal welfare. Aiming to create a tool that helps in the registration and diagnosis of cases of animal abuse, the purpose of this work was to develop an application that can be used by agencies that act fighting crimes against fauna. Thus, the Federal University of Parana signed a contract with the company Scipet Soluções de Inovação Tecnológica LTDA, to develop an application that can be used in the monitoring of reports of animal abuse. The application “Denúncia Animal” was developed in the year 2021 and has features both for the registration of occurrences, including data from the complaint and data from the animal victim, and for the diagnosis of abuse based on the “Protocol for expert report on animal welfare in case of companion animal cruelty suspicion” (Hammerschmidt & Molento, 2014), the integration of a photographic record of animals and documentation generated during inspections can significantly enhance the efficiency of inspection. The application is in the initial phase of testing by municipal enforcement agencies and its use provides these agencies convenience for recording information at the time of inspections and organization of data relating to reports of cases of abuse on a single platform, which may allow centralization of all data on crimes against fauna in a single database, enabling both municipal and state agencies to act in an integrated manner can lead to increased efficiency and effectiveness in public administration.

Keywords: Crime. Fauna. Veterinary Legal Medicine. Information Technology.

RESUMO

A sociedade tem prezado cada dia mais pelo bem-estar dos animais e pelos seus direitos. Desta forma, as instituições que atuam combatendo crimes contra estes seres vulneráveis tornam-se cada vez mais importantes. Visando criar uma ferramenta que auxilie no registro e diagnóstico de casos de maus-tratos, o objetivo deste trabalho foi desenvolver um aplicativo que possa ser utilizado pelos órgãos que atuam combatendo crimes contra a fauna. Desta forma, a Universidade Federal do Paraná firmou contrato com a empresa Scipet Soluções de Inovação Tecnológica LTDA para desenvolver um aplicativo que possa ser utilizado nas fiscalizações de denúncias de maus-tratos. O aplicativo “Denúncia Animal” foi desenvolvido no ano de 2021 e conta com funcionalidades tanto para o registro das ocorrências, incluindo dados da denúncia e dados do animal vítima, quanto para o diagnóstico objetivo de maus-tratos com base no “Protocolo de perícia em bem-estar animal para diagnóstico de maus-tratos contra animais de companhia” (Hammerschmidt & Molento, 2014), havendo a possibilidade de registro fotográfico do animal vítima e registro de documentação gerada no momento da fiscalização. O aplicativo se encontra em fase inicial de testes por órgãos fiscalizadores municipais e sua utilização propicia a estes órgãos praticidade para registro das informações no momento das fiscalizações e organização dos dados referentes às denúncias de casos de maus-tratos em uma única plataforma, o que pode permitir futuramente a centralização de todos os dados de crimes contra a fauna em um banco de dados único, possibilitando que tanto órgãos municipais quanto estaduais possam atuar de forma integrada e, conseqüentemente, mais eficiente.

Palavras-chave: Crime. Fauna. Medicina Veterinária Legal. Tecnologia da Informação.

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Society is increasingly concerned about the welfare of animals and their rights, so government institutions that work to combat crimes against these vulnerable beings are becoming increasingly important (Evans, 2010).

In Brazil, there are laws that provide protection for animals from crimes such as abuse (Brasil, 1998). Federal Law 9.605/98 provides penal sanctions arising from conduct and activities harmful to the environment and defines “Crimes Against Fauna” as: “To abuse, mistreat, injure or mutilate wild animals, domestic or domesticated, native or exotic: Penalty - detention, from three months to one year, and a fine”. More recently, the approval of Federal Law 14.064 of 2020, increases the penalties for crimes of mistreatment of animals when it involves dogs or cats, establishing a prison sentence of 2 to 5 years and a ban on custody when an act of abuse, mistreatment, or mutilation is practiced against these animals (Brasil, 2020).

Professionals with knowledge and experience in animal welfare are fundamental in identifying situations that may characterize animal abuse (Hammerschmidt & Molento, 2012). According to Law 5.517/1968 (Brasil, 1968), only veterinarians are responsible for expert examination of animals in judicial matters and, consequently, for diagnosing animal abuse. Thus, training veterinary students and professionals to recognize the link between animal abuse and interpersonal violence is crucial (Monsalve et al., 2019), professionals who work with animal cruelty cases are also able to identify vulnerability in families and provide interventions against different types of violence in society (Monsalve et al., 2017).

Governmental animal abuse inspection services exist to address animal cruelty, the reports of crimes against animals can be received and inspected by various agencies such as municipal departments, Civil Police, Environmental Police, and the Brazilian Institute of Environment and

Renewable Natural Resources (IBAMA), each agency works independently, and there is no integrated database in the various instances and agencies for the reports and their follow-up. This generates duplicated complaints and procedures because different agencies can receive the same report and act individually, wasting resources and time. In addition to that, these agencies do not uniformly adhere to the same protocols, and most cases lack an organized system for recording and tracking animal abuse cases.

The use of technology and online tools is making it possible for public administration to evolve because, through these tools, it is possible to expand the actions of governments, this use also improves the relationship with other spheres of the administration, as it generates a positive reduction in bureaucracy for all those who relate to government agencies, adding efficiency and practicality. The Brazilian government, in 2000, started implementing Electronic Government functionality to help with Public Administration online demands, bringing positive results that can be expanded to the academic sphere, this service also allows people to search for public health services (Furtado & Jacinto, 2010).

Aiming to create a tool that would assist in the identification and diagnosis of cases of animal abuse, the purpose of this work was to develop a mobile application that could be deployed by regulatory agencies engaged in the combat and prevention of animal crimes. To this end, the Federal University of Paraná entered into a contract with Scipet Soluções de Inovação Tecnológica LTDA to develop an application that could be used during inspections of animal abuse reports.

The “Denúncia Animal” application began to be developed in 2021 and its target audience is officers and public agents, especially veterinarians, who inspect reports of animal abuse. To use the application, these professionals need to be trained and have special knowledge regarding animal welfare and the diagnosis of animal abuse. Before receiving access to the application, the research team offers free training for the inspectors to learn how to use the application and provides assistance at any stage of its use.

Through the app, these professionals can record the details of the animal abuse reports (such as the date the complaint was received, the name and address of the reported person) (Figure 1), details of the animal victim (such as name, species, sex, breed, age and coat color) (Figure 2), apply an objective animal welfare protocol based on the “Protocol for Expert Report on Animal Welfare in Case of Companion Animal Cruelty Suspicion” (Hammerschmidt

Registro da fiscalização - 1/7

Protocolo de perícia em bem-estar animal

Tipo da denúncia

Vistoria

Revistoria

Data da denúncia

13/06/2022 - 07:48

Data da vistoria

13/06/2022

Hora da visita

03:08

Nome do denunciado

CPF

Número do boletim de ocorrência

Endereço

Logradouro

Figure 1 – Screenshot of a cellphone demonstrating the app's inspection data recording functionality.

& Molento, 2014), where animal welfare indicators can be recorded, including nutritional (Figure 3), health, comfort and behavioral indicators, thus enabling a diagnosis of animal welfare and abuse (Figure 4).

The Protocol for Expert Report on Animal Welfare in Case of Companion Animal Cruelty Suspicion was chosen as the basis for the objective diagnosis of animal abuse for the application since it is a protocol that is being widely used by inspection bodies in Brazil and has a well-founded scientific basis in animal welfare guidelines. This objective assessment is important for helping to diagnose abuse, as several agencies carry out

Identificação Animal - 2/7

Nome

Lulu

Microchip

Espécie

Canina

Felina

Equina

Bovina

Ovina

Suína

Outra

canina

Raça

Sexo

Macho

Figure 2 – Screenshot of a cellphone demonstrating the functionality of the animal data recording application (such as name, species, sex, and breed).

inspections but do not use specific protocols that consider animal welfare assessment parameters. The diagnosis of abuse must consider the four sets of indicators presented in the protocol (nutritional, health, comfort and behavioral), but it must consider other analyses that also involve the health of the animals and the socio-economic circumstances of the owners.

In addition, it is possible to photograph the animal in five different photographic plans (Figure 5), to photograph the location and to record the photographic documentation of the case. The photographic recording of the animal is very important so that animals can be

Indicadores Nutricionais - 3/7

- Qual é o escore da condição corporal (1-5)
 - Muito magro - 1
 - Magro - 2
 - Ideal - 3
 - Acima do peso -4
 - Obeso - 5
- Há água fresca no local?
 - Sim
 - Não
- O que o animal come?
 - Ração
 - Comida caseira
 - Restos de alimentos
- Com que frequência o animal come?
 - 1x/dia
 - 2x/dia
 - 3x/dia

Figure 3 – Screenshot of a cellphone demonstrating the functionality of the objective animal welfare protocol based on the “Protocol for an expert report on animal welfare in case of companion animal cruelty suspicion” (Hammerschmidt & Molento, 2014).

identified quickly, without the risk of animal replacement, and the photographic record of the scene helps the team to make an accurate diagnosis of the situation in which the animal lives without the risk of forgetting the details portrayed in the scene.

In this way, the application’s functionalities allow the team to record the entire process of an animal abuse investigation - as well as complete data about the complaint and the animal - practically and efficiently, thus making it easier to obtain evidence for the legal

Diagnóstico Geral - 7/7

- Inadequações de quais conjuntos de indicadores?
 - Nutricionais
 - De conforto
 - De saúde
 - Comportamentais
- Grau de bem estar:
 - Muito alto
 - Alto
 - Regular
 - Baixo
 - Muito baixo
- Ocorrência maus-tratos
 - Configura maus-tratos (baixo e muito baixo)
 - Não configura maus-tratos, mas precisa de recomendações e retorno (regular)
 - Não configura maus-tratos, mas precisa de retorno (muito alto e alto)
- Gerou boletim de ocorrência?

Figure 4 – Screenshot of a cellphone demonstrating the functionality of the objective diagnosis of the degree of animal welfare and animal abuse.

proceedings. The finding of abuse can result in the owner being notified or fined, depending on the legal process at the inspection body.

Through the use of the application, it is possible to make a casuistry of all the cases received by the agencies, making it possible to analyze the characteristics of the most prevalent victims and the most prevalent types of abuse in each municipality.

Furthermore, forthcoming updates to the application will include protocols for expertise to be employed in identifying non-accidental traumas, necropsy examination protocols, and toxicological examination protocols. For the future

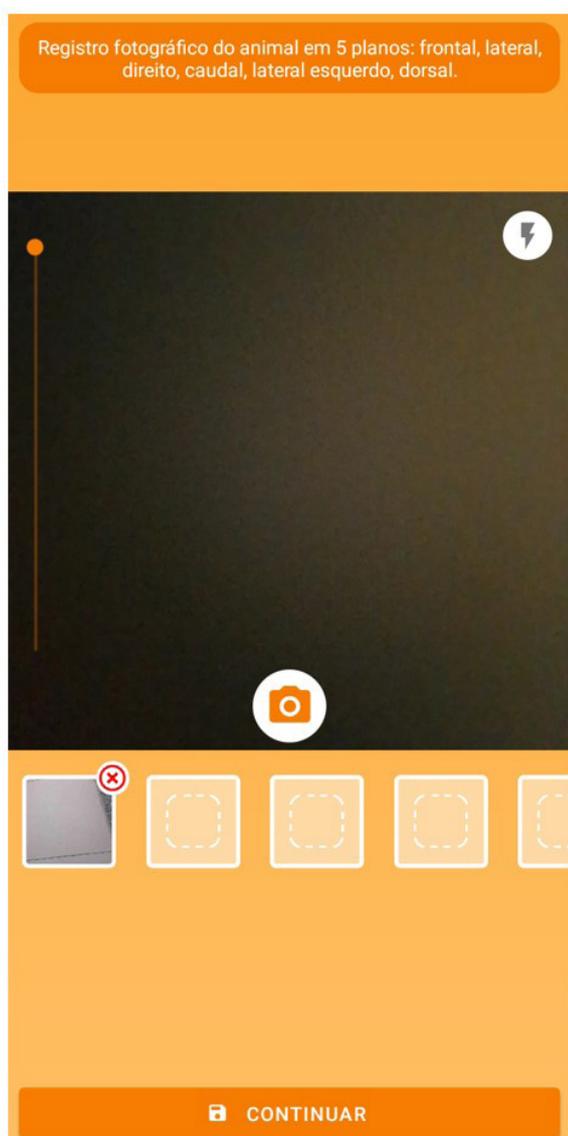


Figure 5 – Screenshot of a cellphone demonstrating the functionality of the photographic record of the animal in 5 different photographic plans.

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inclusion of protocols such as necropsy examinations and toxicology tests, it is necessary to have a chain of custody for these documents to be considered valid in legal proceedings.

The application is currently in its testing phase by municipal regulatory agencies, and its utilization enables these agencies to seamlessly record information during inspections and organize data about allegations of animal abuse within a single platform. Ultimately, this may facilitate the centralization of all data regarding animal abuse and other crimes against fauna within a single database, allowing both municipal and state entities to function in an integrated and, accordingly, more efficient manner. It is hoped that in the years to come, a substantial number of regulatory agencies dealing with allegations of animal abuse will adopt this application, thereby rendering the registration of incidents more practical and organized and facilitating the work and activities of professionals in this field.

Conflict of Interest

The authors declare that they do not have any conflict of interest.

Ethics Statement

The application development did not require ethical approval.

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