TECHNICAL NOTE
VIGSA: Software for Animal Health Surveillance

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INTRODUCTION

In recent years zoo-sanitary risks have increased globally due to a step up in human, animal, and goods traffic (Viazzi *et al.*, 2013; Berckmans, 2014). In that sense, it is an imperative for every country to have a support system to surveil animal and human health, besides livestock property (Aydin *et al.*, 2010).

The Cuban Civil Defense system of requirements rules that every location should design animal health surveillance plans, focusing on severe epizootic diseases (González and Percedo, 2005).

In response to those needs (Animal Health Surveillance), software to make possible monitoring and notification actions was designed.

DEVELOPMENT

VIGSA is a computerized system, under General Public License, using free software. Free licensed Creative Commons (CC) was used for visuals. It was made for scale modeling and route programming in an Integrated Development Environment (IDE), called Wavemaker Enterprise Edition. Pre-compiled complement IDE, using JavaSE and Hibernate engine, was used to synchronize database introductions repetitively, with the autonomy of heuristic tables interacting with the user.

Moreover, the primary and compiling language of the software was DojoJS (Dojo Java Script, oriented to objects and the WEB environment, using a MKV (Minimal Kilo Virtual) JDK 7.9, compatible platform of virtualization, to access the master libraries that facilitate code restoration to process low performance devices. The interfaces were collected and gathered in the development standard IDE WMDE (Wavemaker, Desktop Edition) to make visual menus and scale models levitate above the dynamic environment layer.

The program was registered at the National Center for Copyright (CENDA: 3682-12-2014). This version is 3 MB. The logo was designed using Adobe Photoshop CS6, handled with creative design techniques (Fig. 1).

VIGSA is computer and mobile-oriented versatile software, using Android and IOS as synchronized clients, on a server that allows animal health surveillance in places with productive and or exotic species.

The program is a fully digitalized interactive web page (Fig. 2), that makes the report and follow up of an animal population health status. It allows the user to store information for further application through the access window that automatically shows every data of the organization selected, which is an important point for this kind of software (Janus, 2012). It has a help system that allows the user to introduce symptoms observed in the animals, then the program suggests possible compatible pathologies.

The software replaces delayed and tiring manual process, and it makes difficult decision making and information flow at different levels (Santos, 1997).

The main advantages of the software are,

Reduction of paper use in decision making, ensuring a single port of access to information, and preventing duplicity.

All data and information from farms or any organization are centralized to facilitate search and provides easier decision making.

Time saving during searching, arrangement, and information analysis.

The multiplatform system may be installed separately from the operating system (also adaptable to free platforms, as proprietors).

A lot of images and graphs can be accessed, which make the software more understandable and interesting (Moreno (2011), and Silva (2012), especially when they use an easy to work with by a wide range of users.

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Fig. 1. VIGSA software cover

Fig. 2. Section view of the software to report diseases