# Chapter 52 Cyber Space Security Assessment Case Study

Hanaa. M. Said

University Ain Shams, Cairo, Egypt

Rania El Gohary

University Ain Shams, Cairo, Egypt

**Mohamed Hamdy** 

University Ain Shams, Cairo, Egypt

Abdelbadeeh M. Salem

University Ain Shams, Cairo, Egypt

#### **ABSTRACT**

Cyberspace is known as the digital electronic medium for the knowing range of securing in the cyberspace. Therefore the importance of inferring the reference measure in the form of assessment procedure to improve the knowledge and making the decision for the e-government services. A series of the standards build on the application of data mining methods specifically represented as decision tress model, Logistic regression, association rules model, Bayesian network for making reference measurements, to measure the extent of securing the data, and the provided services. The authors discuss various types of cyber-attacks describing how data mining helps in detection and prevention of these attacks. A comparative analysis between a set of selected frameworks is presented. Finally this chapter imparts numbers of applications for the data mining Methodologies in Cyber Security. Results applied on the site of the authority for cleaning and beautifying Cairo governorate in Egypt.

#### INTRODUCTION

It is possible materially setting what is known as cyberspace or what is called also the cyberspace as being the electronic digital field extended through the different metallic, lighting and airy communication its channels in the net of the internet network. The extreme speed information with its technological expression, this space is related with its different concepts, that is because the non-availability of

DOI: 10.4018/978-1-5225-5634-3.ch052

geography for the natural place in the appearance of the geography for the information sailing in the different directions, at the same time that makes this phenomena of the cyberspace of the major features for the information age, it embodies practically the village society through its supposed space of open horizons which puts the human being in a digital world in its foundations and features. The new values talking about the arising of the supposed world as time and place space. They became like the new land as most of the capitals, the modern cultural and scientific movement prompted to it, also the means of amenities beside the crimes (Xiong et al, 2009).

The real cyberspace that is available on the internet. It is difficult, to conduct on them the assessment of quality which can be accepted for the extent of securing it. It can be expressed for this real cyberspace as if the series of the minor cyberspaces. Our objective is analysis, study securing one of the minor cyber space's which is the cyberspace for the authority of cleaning and beautifying Cairo, in the Arab Republic of Egypt (www.ccba.gov.eg) to Analysis the extent of the sufficiency for the suggested reasoning to measure the extent of securing data for the cyberspace. It is one of the important cyberspaces in the frame of the mechanism for the e-government services, and its effect on both the citizens, the investors and on the government, this cyberspace is related with several electronic sites (Varun et al, 2008). The objective is to provide a framework for the system of managing the electronic service that is required to be secured, and which uses the classical means, and utilizing the tools of research for the data to enforce, these services, to provide them through a big set of readings, data, information and facts, discussing them by study, analysis and adapting them to the service of the chapter's objectives to get new services from the government, as it is clear from the Figure 1.

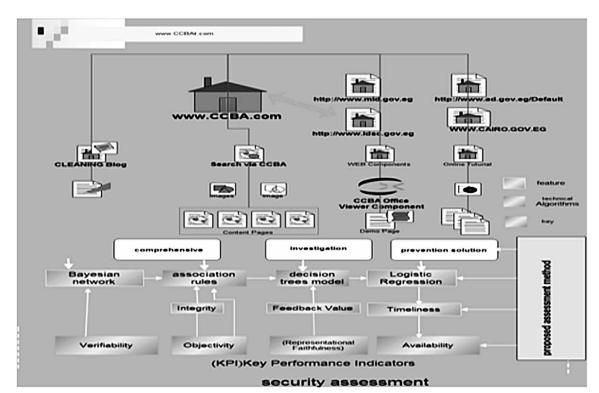


Figure 1. Site map of the Cairo Cleaning and Beautification Authority (www.ccba.gov.eg).

31 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/cyber-space-security-assessment-casestudy/203548

## **Related Content**

# Effective Mechanisms for Accessing Technology and Innovation Strategies: Why and Who Innovate, How to Innovate?

João P. C. Marques (2020). Disruptive Technology: Concepts, Methodologies, Tools, and Applications (pp. 50-74).

www.irma-international.org/chapter/effective-mechanisms-for-accessing-technology-and-innovation-strategies/231180

## Identification and Categorization of Disruptive Innovations According to the Strategic Scope of the Firm

Vincent Sabourin (2020). Disruptive Technology: Concepts, Methodologies, Tools, and Applications (pp. 1840-1859).

 $\frac{\text{www.irma-international.org/chapter/identification-and-categorization-of-disruptive-innovations-according-to-the-strategic-scope-of-the-firm/231268}$ 

## Hybrid Teaching and Learning of Computer Programming Language

Fu Lee Wangand Tak-Lam Wong (2012). Computer Engineering: Concepts, Methodologies, Tools and Applications (pp. 1272-1287).

www.irma-international.org/chapter/hybrid-teaching-learning-computer-programming/62511

## SLO-Driven Monitoring and Adaptation of Multi-Cloud Service-Based Applications

Chrysostomos Zeginis, Kyriakos Kritikosand Dimitris Plexousakis (2018). *Multidisciplinary Approaches to Service-Oriented Engineering (pp. 43-65).* 

www.irma-international.org/chapter/slo-driven-monitoring-and-adaptation-of-multi-cloud-service-based-applications/205293

### The Need for a National Data Breach Notification Law

Kirk Y. Williams (2018). Cyber Security and Threats: Concepts, Methodologies, Tools, and Applications (pp. 1657-1668).

www.irma-international.org/chapter/the-need-for-a-national-data-breach-notification-law/203579