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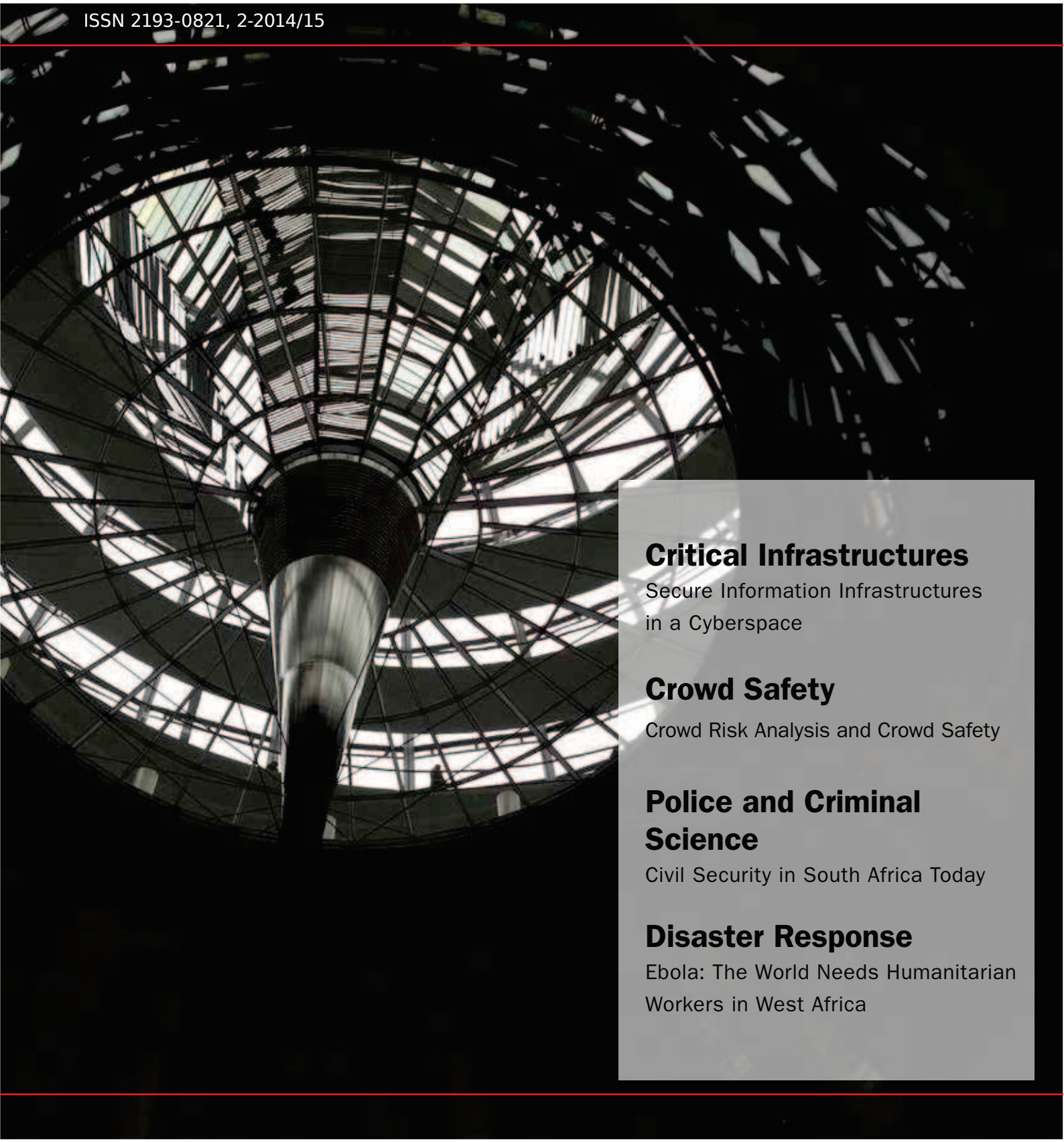

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Public Security - Disaster Response - Comprehensive Approach

Game Changing Trends and Technologies for Video Surveillance in 2015 and Beyond

Johan Paulsson,
CTO, Axis Communications

Cloud computing has become more and more popular.

Synopsis

Three of gaming changing trends for video surveillance in 2015 and beyond are discussed in this article. Video surveillance-as-a-service (VSaaS) and cloud computing has become more and more popular for managing and archiving video footage captured by surveillance cameras onto cloud storage. Analytics technology is considered to finally take off within the surveillance industry for getting valuable insights from the enormous amount of both structured and unstructured information collected (also known as big data). Video compression technologies such as H.264 and H.265 are all about

Crowd Risk Analysis and Crowd Safety

Professor Dr. G. Keith Still

Introduction

We have all experienced crowds, some good, some bad and some very frightening. If you have ever been swept off your feet in a crowd crush you will know how powerless you can feel in that situation. In this article, Professor Dr. G. Keith Still outlines the principles and applications of Crowd Risk Analysis and crowd modelling for places of public assembly.

Crowd Risk Analysis

Over the last twenty-five years, we have been developing a practical approach to assessing the risks related to "*Crowd Dynamics*[1]". The objective of this work is to define a hands-on methodology for risk assessment and to assist users in the recognition of risks related to overcrowding.

What are the risks of crowd crushing?

John Fruin wrote a paper in 1993 called "*Causes and Prevention of Crowd Disasters*[2]". In this paper, published in 1993[3], he describes the underlying causes of crowd related accidents and incidents. Specifically, Fruin highlights that the forces that can be exerted by a 3 - 5 people

> In an Australian Building Technology Centre study, **three** persons in a combined leaning and pushing posture developed a force of 1,370 N (306 lbs.). This study showed that **five** persons were capable of developing a force of 3,430 N (766 lbs.).

In the same book, a paper by Hopkins called "Crowd Pressure Monitoring[4]" outlines dangerous crowd pressures:

> Firstly, death was estimated to have occurred 15 seconds after a load of 1,440 lbf (6,227 N) was applied. […] it was estimated that death occurred after 4 - 6 minutes of applying a load of 2,50 lbf (1,112 N).

We can see that it does not take a vast crowd to exert dangerous pressures.

Some of the key questions we are often asked during lectures and workshops are:

- How many people can this space hold?
- What are the risks of crushing?
- How do we measure crowd risks during an event?

The following visuals will help define the safety criteria for the above questions.

Identifying risks of dangerous pressure

The images below show the crowd density from 1- 5 people per square metre.

1 person per square metre (625 square metres 5 m grids) shown against two tennis courts.

2 people per square metre, shown against two tennis courts.

1 http://www.gkstill.com/CV/PhD/index.html
2 http://www.gkstill.com/Support/crowd-flow/fruin/Fruin2.html
3 „Engineering for Crowd Safety" RA Smith and JF Dickie (Editors) in 1993 by Elsevier.
4 „Crowd Pressure Monitoring" by IHG Hopkins, SJ Poutney, P Hayes and MA Sheppard.

Prof. Dr. CJ Roelofse

Civil Security in South Africa Today

How does South Africa deal with the topic of "safety and security"?

Introduction

South Africa has a very complex political history that spans a period of about a thousand years. The migration of tribes from around the great lakes of Africa resulted in the establishment of tribal territories, mainly determined by conflict. These had no distinct boundaries but pastoral needs, droughts and conflict often resulted in migration to other areas. Other developments that had a significant impact on the region were the arrival of Dutch colonists in 1652; the Groot Trek in 1838, where colonists moved north to get away from the British annexation of the Cape and the consequential establishment of the two Boer Republics of the Free state and the Transvaal while the Natal and Cape that remained under British rule. This was followed by the first Anglo–Boer wars of 1871 and the second one from 1899 to 1901 after which the Republics lost their sovereignty. This was followed by the unification of the four territories in 1910 and the eventual establishment of the Republic of South Africa in 1961; the armed struggle led by the ANC and finally the new South Africa that came about in 1994. Policing were affected by all these developments and a historical overview will give a clear indication of the impact that the political changes had on policing.

Historical Developments of Policing in South Africa

Traditional law and policing

Before 1652, tribal oral law existed with the various groups such as the Nguni, Venda and Tswanas. Judgement passed by chiefs and headman perpetuated in subsequent judgements – were binding on subsequent court cases. This is an oral form of judgement by precedent. Rural black societies organised themselves into villages, districts, larger districts and kingdoms. Each level exercised certain powers and had a specific jurisdiction. In the Zulu tradition responsibility was collective. The whole kraal was responsible for misdeeds and debts of any one of its inhabitants and a principal was always responsible for the acts of his agents or dependants. The result was that every man in the tribe was a policeman and was bound to report to his superior any act or wrong which he may have seen being done, otherwise he incurs the responsibility in regard to the act (Krige, 1936: 222). This collective responsibility again reminds strongly of the developments of collective responsibility under the tithing man during the Anglo-Saxon period.

Post van Riebeeck era (1652)

After arriving in the Cape in April 1652, already by December; Jan van Riebeeck, the Dutch governor of the Dutch East Indian Company, appointed a police officer or "skout" to curb black market trading with the natives of the Cape (Van Onselen, 1960:9). According to Van Heerden (1976:28), the "Burgerraad" appointed ten citizens to perform night duties. They were called rattle guards. They patrolled and used a rattle to make noise to scare potential offenders. When an offence had been committed they used the "hue and cry" to alert the neighbourhood to assist with the arrest. Various other changes were made such as dividing Cape Town into wards in 1799. When the British annexed the Cape in 1806 the system of the rattle guards, citizens' guard and wards continued to exist.

In the old Republic of the Transvaal an act was passed in 1871 to make provision for a police service (Sergeanten van Politie). In 1874 the "Utrecht Frontier Wacht" was launched and the "Rijdende Politie" in Waterberg (1875) and "Chef van Politie" in Soutpansberg came about. The latter two regions are situated in the current Limpopo province.

In Natal the Borough Police came into being in 1854 while the Free State had thirteen towns with police corps by 1873 (Ibid., pp. 30-31). A further very interesting development came with the establishment of the Grigualand-West police in 1880. This was in fact the first detective service specifically found to investigate illicit diamond dealings (Hattersley, 1960:120). Similarly the congestion on the goldfields in and around Johannesburg

Ebola: The World Needs Humanitarian Workers in West Africa

Stigmatizing them or restricting their movement will hinder the global response.

Statement by the International Red Cross and Red Crescent Movement

During an Ebola virus disease outbreak in Sierra Leone, Red Cross volunteers created a song and skit to raise awareness about the deadly disease. Prior to public gatherings being banned by the government, the volunteers would perform the drama in communities. Now, they perform on the radio. They also join sessions to sensitize various community groups, such as traditional healers seen here. It is hoped that by engaging leaders of the community that they will help spread messages of how to prevent the spread of Ebola. Source: Katherine Mueller, IFRC

An effective global response to the Ebola crisis in West Africa requires unhindered movement to and from the region for humanitarian workers. The International Red Cross and Red Crescent Movement is urging all governments to support and facilitate this, and ensure health workers returning from Ebola-affected countries are treated with respect and without discrimination. These workers are on the frontline of all our efforts to contain and combat the disease.

The international and local workers at the centre of the humanitarian response to Ebola are an inspiration to us all, and are vital in demonstrating that undertaking this work can be done in a safe and secure way. Stigma or discrimination against health workers – including isolating them with no scientific basis – will lead inevitably to a human resources crisis at a time when we need qualified people willing to join the response and go where they are most needed.

While proportional preparedness and vigilance are

he said. "That's the time to be more vigilant and that's the time to keep on sustaining the good behaviour to protect the gains that we have made." According to the World Health Organisation, Ebola has claimed more than 6,300 lives, predominately across Sierra Leone, Liberia and Guinea.

Ebola fighters

The Red Cross Movement has more than 10,000 trained volunteers tackling the disease across the three countries. The work of so-called 'Ebola fighters' has been recognised by Time magazine, which named them their 'Person of the Year 2014'. Mr As Sy paid tribute to the Red Cross volunteers in his speech and emphasised the importance of gaining the trust of communities affected by Ebola – an integral part of the volunteers' work. "The starting point is to build the trust in the community so that people are open about cases and they trust us with those cases and to bring them to treatment centres," he said. "We need to strengthen our work in fighting stigma and discrimination so people are not driven underground through fear of being stigmatized, isolated and ill-treated."

Five steps to beat Ebola

The Red Cross response to the Ebola outbreak is focused on five core 'pillars'.

- Raising awareness of the disease
- Finding people who have come into contact with Ebola so they can be tested for the disease and quarantined if necessary
- Treating patients
- Safely burying Ebola's victims
- Working with communities and survivors to reduce stigma

While much has been made of the need for treatment centres, treating patients alone is not enough to rid West Africa of the disease, according to Mr As Sy. "The biggest concern, which is at the same time an opportunity, is to make sure all pillars of the response are considered at the same level," he said. "There's a lot of talk about treatment centres and safe and dignified burials, but these are only two pillars among many."

Exhibition

Counter Terror Expo, the leading international event dedicated to mitigating the threat of terrorism will open its doors for the 7th edition of the show on 21-22 April 2015 at Olympia, London.

Every location where people gather needs to plan for possible terrorist attack.

Leading security expert Chris Phillips says that the attack on the Lindt café in Sydney highlights the need for all crowded places to have a contingency plan for implementation in the event of a terrorist attack.

Speaking on behalf of Counter Terror Expo, the annual exhibition and conference, Mr. Phillips said, „We have to face the reality that locations such as primary schools, shopping malls and leisure centres are all potential targets for terrorist attack today. They should all develop and rehearse an emergency response plan just as they do with fire drills."

Drawing on his extensive experience of counter terrorism, Mr Phillips makes these recommendations:

- 1. Understand that a terrorist attack is very different situation to a fire and there are different options to consider.
- 2. While evacuation is usually the standard response to a fire, a security emergency may instead necessitate a lockdown, as sending people out could be more dangerous. Establish where the safe places are in the premises.
- 3. If hiding from the attackers, create a barricade, stay away from doors and remain quiet.
- 4. Consider how you communicate in an emergency, e. g. alarms or group texting.
- 5. Be ready to communicate key messages, such as „Stay away from corridors and evacuate through windows."
- 6. Unless evacuating, stay away from windows which can cause numerous injuries in the event of an explosion.
- 7. Understand the need to communicate with emergency services and what they need to know, e. g. the number of suspects, the types of weapons they are using, their location or direction of travel.
- 8. First aid kits and people trained to use them are an essential.
- 9. Practice the plans just as you would a fire drill.

Counter Terror Expo 2015 will take place at London's Olympia on 21-22 April 2015.

About Chris Phillips

Chris is the founder and Managing Director of the International Protect and Prepare Security Office. He started the company after 30 years as a Police officer and has extensive policing experience in both public order and community based policing. This included event commander for major sporting events at venues such as Twickenham Stadium and Wimbledon. A highly experienced Police Security Co-ordinator (SECCO), Chris co-ordinated the Counter Terrorist security for visits to the UK from foreign governments and dignitaries. He is a former Head of the National Counter Terrorism Security Office.

About Counter Terror Expo

Counter Terror Expo is a world leading gathering of internationally renowned experts in the field together combined with the world's leading exhibition of technique and technology solutions. Held annually in London, UK, Counter Terror Expo is the principal calendar event for counter terrorism professionals from across the globe.Milipol Paris, the international event for key players in the internal State security sector, will open its doors from 19 to 22 November 2013 for 4 days of exhibitions, meetings, discoveries and discussions about public and industrial security.

For more information, please visit:

www.counterterrorexpo.com

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Editorship: Dr. Nadine Seumenicht
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Advisory Team
Comprehensive Approach: Harald Kujat, General a. D.
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Science: Prof. Dr.-Ing. Michael Gerke; Dr. Nadine Seumenicht
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Fax: +49 (0) 23 72 / 9 35 26 19
redaktion@homeland-sec.de
www.homeland-sec.de

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