



## CONFERENCE DOCUMENTS

**The expanding influence of the internet,  
the exploitation of cyberspace and the  
transformational nature of new technologies**

21 April 2017  
**Conference Centre  
Praça Europa 4, Cais do Sodré, Lisbon**

## Programme

Friday 21 April 2017

Chair: Roumen Sedefov and Teodora Groshkova, EMCDDA

9.00	<p><b>Session 1: Internet — the big picture</b>  Welcome and official opening — Alexis Goosdeel, EMCDDA Director  Internet, darknet and you — Andrew Lewman, Laxdaela, USA</p> <p><b>Session 2: Cybercrime — clarifying the concept and shedding light on law enforcement responses</b>  Cybercrime in the EU: law enforcement responses, challenges and outlook — Steven Wilson, Europol  Inside cyber patrolling: principles and practical experience — Adriana María Tostón Díez, Guardia Civil, Spain</p>
10.30	Break
11.00	<p><b>Session 3: Monitoring open source intelligence, darknet markets and social media</b>  A multiplicity of approaches to drug problems: EMCDDA and internet monitoring — Jane Mounteney, EMCDDA  Drug supply on the darknet: EU-focused analysis — Nicolas Christin, Carnegie Mellon University, USA  Monitoring internet and other open sources: technology innovation for health and security — Jens Linge, EC-Joint Research Centre  Exploring the link between migration and the internet — Jean-Pierre Schembri, EASO</p>
12.30	<p><b>Session 4: Discussion and wrap-up</b>  Closing remarks — Paul Griffiths, EMCDDA Scientific Director</p>
13.00	End

## Short biographies and abstracts of keynote speakers

### Andrew Lewman



Andrew has more than 30 years of global technology experience in a variety of domains, including information security, systems administration, and data management. His interest lies in the intersection of technology and humans. He's been a top executive at many high-growth start-up companies. He is an advisor with military and intelligence agencies in the US, the National Security Agency and the Department of Homeland Security, among others. One of Andrew's most recent publications is with the European Monitoring Centre for Drugs and Drug Addiction on Tor and Links with cryptomarkets. He's the Treasurer for Emerge, helping to stop domestic violence through counselling abusers and Chairman of Each One Teach One providing economic opportunity for women and girls through technology.

#### Internet, darknet and you

Andrew is going to introduce key concepts around the internet and darknet. He will then present on his research mapping and analysing the darknets of Tor, the Invisible Internet Project (I2P), and ZeroNet. He has spent the past three years crawling, indexing, and analysing the darknets using tools and technologies from the network science discipline — and he'll speak a little bit about the ongoing analysis.

### Steven Wilson



Steven originates from Ayrshire, Scotland. He was a Police Officer in Scotland from 1985–2015. During this time, he served with Strathclyde Police, Scottish Crime and Drug Enforcement Agency, Her Majesty's Inspectorate of Constabulary and, since 2013, with the reorganisation of policing in Scotland into a national force, Police Scotland.

Steven performed a variety of senior Detective roles and was responsible for the national units in Scotland delivering: witness protection, covert technical policing, fugitives, undercover policing, assisting offender programme and all forms of cybercrime and cyber enabled crime including online child protection. He was the Scottish representative on UK cyber governmental and policing groups and led on industry and academic partnership groups on cyber resilience in Scotland.

Steven has also worked in covert policing, major investigations, sex offender management, counter-terrorism investigations and represented the UK on international policing matters. He took up office as Europol's Head of European Cybercrime Centre (EC3) on 18 January 2016.

#### Cybercrime in the EU: law enforcement responses, challenges and outlook

Steven has now the opportunity and challenge to steer the Cybercrime Centre towards a sustained course of continued operational delivery and regular reorientation on the rapidly evolving cyber threat landscape. This includes the monitoring of relationships between cybercrime and traditional organised crime groups as well as the connection between terrorism and internet facilitated communications and payment systems. Steven will address these issues in his presentation. He will also talk about the EC3 role in activities supporting cybercrime investigations in EU Member States. The demands for the Cybercrime Centre services are boosted by the positive effects of pooling cyber intelligence and resources to fight the most impactful cybercrime networks at EU level and also in close coordination with key law enforcement authorities from partners outside the EU.

### Adriana María Tostón Díez



Adriana is a Captain at the Spanish Guardia Civil since 2012. She was head of a police station in San Juan de Alicante (Spain) dealing with prevention, reaction and investigations in the region as Lieutenant from 2009 to 2013. As Captain she is at the criminal investigation command at the intelligence unit of the Guardia Civil, dealing with international cooperation since 2013. She is the Guardia Civil representative in the Working Party on Information Exchange and Data Protection (DAPIX) (EU Council working group), she has been involved as trainer at the Frontex Master, and in the EU project for enhancing the PCCC (Police and customs cooperation centres) and Guardia Civil coordinator of the PCCC. She has been involved in different fora as international cooperation expert at national and international level. She is point of contact for liaison officers in Spain for the operational and strategic exchange of information and intelligence.

Adriana is the deputy driver of the EMPACT – Illicit firearms trafficking since 2014. From 2015 she has been action leader for the action related to the online investigations and has been involved in the organisation of online investigations training and cyber patrolling exercise.

#### Inside cyber patrolling: principles and practical experience

Adriana's presentation will be about experience in the preparation, development and follow up of a cyber patrolling exercise to tackle the illicit trafficking of firearms, sharing challenges and lessons learnt from the experience.

### Jane Mounteney



Jane Mounteney has been working in drug research, policy and practice since 1994, both at a national and European level. In her current position as Head of the Contents coordination and trend analysis sector at the EMCDDA she is responsible for the European Drug Report and numerous other publications and has a special interest in the area of emerging drug trends. In the past, she has worked at the UK-based Institute for the Study of Drug Dependence, and the Bergen Clinics Foundation in Norway. She has two masters degrees (in management and social work) and a public health PhD, focusing on methods for earlier warning of new drug trends. In 2015 Jane led an EMCDDA trendspotter study on the internet and drug markets, which resulted in a 13-chapter publication on the topic.

#### A multiplicity of approaches to drug problems: EMCDDA and internet monitoring

Jane's presentation will shed further light on the topic of the internet and drug markets drawing on the experience of the EMCDDA in a number of areas, including monitoring open sources, with a focus on the role of social media and apps, online sales of new psychoactive substances, and online sales of medicinal products for illicit use; the sale of drugs on darknet marketplaces. There will be a special case study focusing on the trendspotter methodology to explore online markets. Jane will highlight the challenges of monitoring such a dynamic and fast-changing environment and set out some of the future priorities for the agency.

### Nicolas Christin



Nicolas is an Associate Research Professor in the School of Computer Science and in Engineering and Public Policy at Carnegie Mellon University. He is affiliated with the Institute for Software Research, and is a core faculty member of CyLab, a university-wide security institute. He also has courtesy appointments in the Electrical and Computer Engineering (ECE) department, and in the Information Networking Institute.

Nicolas received a Diplôme d'Ingénieur (1999) from École Centrale de Lille, a Master's (2000) and a Ph.D. (2003) in Computer Science from the University of Virginia. He then spent two years (2003-2005) as a postdoctoral fellow in the School of Information at UC Berkeley, before joining Carnegie Mellon in July 2005. He was a faculty in residence for three years (2005-2008) in Carnegie Mellon's research and education center in Kōbe, Japan. After coming back

to the US, he served as Associate Director of the Information Networking Institute from 2008 through 2013, and as a research faculty in ECE from 2013 through 2016.

#### Drug supply on the darknet: EU-focused analysis

One of Nicolas' most recent projects is an EU-focused analysis of drug supply on the darknet, supported by the EMCDDA. Nicolas will present the key findings of this project, focusing on the EU-emanating illicit drug sales, including vendor activity and the purchasing habits of buyers. This piece of work provides a policy-relevant assessment of the relative significance of EU suppliers in the global darknet drug trade and in the overall European retail drug market.

## Jens Linge



Jens P. Linge has worked as scientific officer at the Joint Research Centre (JRC) of the European Commission since 2005, after his Ph.D. in Physics at the European Molecular Biology Laboratory in Heidelberg and postdoctoral research at the Pasteur Institute in Paris. He joined the text and data mining team in 2008 where he focussed on the development of surveillance tools in the area of public health.

### Monitoring internet and other open sources: technology innovation for health and security

The Medical Information System (MedISys) is a fully automatic event-based surveillance system that monitors reporting on communicable diseases in man and animals, chemical, biological, radiological and nuclear (CBRN) threats, plant health, and food and feed contaminations on the internet. In collaboration with the EMCDDA, the system was customised for the monitoring of drugs and psychoactive substances. The system retrieves news articles from specialised official and unofficial medical sites, general news media and selected blogs, categorises all incoming articles according to pre-defined multilingual categories, identifies known names such as organisations, persons and locations, extracts events, clusters news articles and calculates statistics to detect emerging threats. Users can screen the categorised articles and display world maps highlighting event locations together with statistics on the reporting of health threats, countries and combinations thereof. Articles can be further filtered by language, news source, and country. Analysts can use the collaborative tool NewsDesk to further refine the selection of automatically retrieved articles and create reports or deliver notifications via e-mail or SMS.

## Jean-Pierre Schembri



Jean-Pierre currently occupies the post of Head of the Communications & Stakeholders Unit within the European Asylum Support Office (EASO). He is also the agencies' spokesperson. Mr Schembri has formed part of EASO from the very beginning and has seen the role of the agency evolve through the years. Before joining EASO, Mr Schembri worked at the Maltese Ministry of Foreign Affairs, the Office of the Prime Minister, and also at the Permanent Representation of Malta to the EU where he occupied the posts of Attaché and Chef de Cabinet. At the Permanent Representation of Malta to the EU, he was instrumental in securing the decision to locate EASO in Malta. Mr Schembri studied European Politics and Administration at the University of Malta and at the College of Europe in Bruges.

### Exploring the link between migration and the internet

Smuggling networks are increasingly using social media accounts to advertise and offer their services. These include providing fake travel documents, permits, and sea and air travel to desperate migrants. Also the discourse among migrants on social media gives clear insight into migrants' plans and expectations. EASO recently took over the UNHCR's migration-related social media monitoring activities and is now actively monitoring social media platforms in Pashtu, Dari, Farsi and Arabic. Its aim is not only to feed its findings to Member States to help them prepare for new waves of migrants and to target the information needs of migrants, but also to gain a better understanding of the modus operandi of smugglers. Jean-Pierre Schembri, who is leading this new area of work for EASO, will, among others, present the latest findings and trends seen in social media.