

# MEDIA CYBERSECURITY SEMINAR

AN EBU EVENT

## SHAPING A MORE SECURE MEDIA INDUSTRY



### PROGRAMME

TUESDAY 18 OCTOBER 2022 (10:00 – 17:00 CET)

10:00 – 10:10

#### Welcome & Introduction



**Antonio Arcidiacono** is Director of Technology & Innovation at the European Broadcasting Union. He has extensive experience in conceiving, developing and taking new products and services to market. Since joining the EBU in September 2018, Antonio has launched several initiatives designed to leverage the collective expertise and momentum of the EBU Membership for technology innovation, deliver key building blocks for the digital transformation of public service media, and strengthen collaboration between PSM, European policy initiatives, start-ups and academic institutions. Two of Antonio's most recent initiatives are the 5G Media Action Group (5G-MAG) and EuroVOX. 5G-MAG currently counts 40 members from the industry and aims to ensure future 5G standards are fit for purpose in media production and distribution. EuroVOX is a

collaborative project of the EBU and several of its Members that aims to break down language boundaries for users and content. It consists of an open framework upon which services can be built, and a set of tools for media creators, such as speech-to-speech translation. Antonio previously worked as Director of Innovation and a Member of the Management Committee at Eutelsat; the European Space Agency; Telespazio, and Selenia Spazio



**Hans Hoffmann** (PhD) is EBU Senior Manager and head of unit on media fundamentals and production technologies in the EBU Technology and Innovation department. He has been for 9 years with the Institut fuer Rundfunktechnik (IRT) as research staff in new television technologies until moving to the EBU in 2000. In the EBU he has been leading many activities on media integration, production technologies, technology evaluations, and he established the EBU HDTV testing lab, and work with EBU Members on IT based digital workflows and open innovation strategies. More recently he and his team looked at emerging technologies such as immersive media (UHD, NGA), AI-Data, EU 5G projects, IP and cloud-based media. Hans is the current

president of the SMPTE for 2021-22 ("the global home for media professionals, technologist and engineers"). He has been author of many EBU Technical documents; IEEE papers and is a standing speaker and contributor to international conferences and recipient of the 2020 Richard Theile Medal.

### KEYNOTE

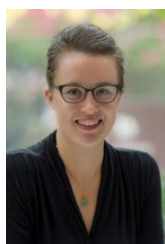
MODERATED BY LUCILLE VERBAERE (EBU)



**Lucille Verbaere** joined EBU as Senior Project Manager, coordinating Media Cybersecurity activities. She has 20y-experience in Cybersecurity, Telecommunications, Air Transport and Semiconductor industries: she started as an R&D engineer at ST Microelectronics, doing research on wireless telecom systems (Today's IoT domain). Then Lucille joined SITA as program and product manager for infrastructure and cloud-based data management services to airports and airlines worldwide. In her last position at ID Quantique in Geneva, Lucille was responsible for a portfolio of cybersecurity products, based on quantum physics.

10:10 – 10:40

#### How we can address the cybersecurity capacity gap



**Caroline Troein** works at the International Telecommunications Union as a lead researcher, and works on projects related to digital transformation, cybersecurity, artificial intelligence, and digital capacity. At the Fletcher School Digital Planet initiative, she co-created the Smart Societies framework for looking at digital societies, and worked on the Digital Evolution Index, African Leapfrog Index, Digital Trust Index, and Global Cost of Cash. She focused on strategic technologies in the global commons, applying systems analytics and security studies to cyber, space, and maritime questions. She has worked as a consultant on cross-country user technology behavior. She has also worked as a Congressional staffer in the US House of Representatives, where her policy portfolio included technology, space, and cyber issues. She has assisted in high level diplomatic conferences on cyber issues, and is strongly engaged with the cyber and space policy communities.

### SESSION 1: CYBERSECURITY THREATS IN 2022

MODERATED BY LUCILLE VERBAERE (EBU)

10:40 – 11:10

#### Dealing with Internet Censorship as an international Broadcaster

The technical challenge of bringing content in 32 languages to their worldwide target regions despite internet restrictions.

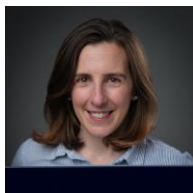


As a part of DW's IT-Cybersecurity Team, **Oliver Linow** is DW's Internet Freedom specialist in charge of censorship circumvention. He's a member of the DG8 Internet Freedom Working Group, which brings together experts from various international broadcasters like the BBC and the USAGM. In 2019, he brought Deutsche Welle with its own onion service into the Tor network. Twitter: @OliverLinow  
LinkedIn: [linkedin.com/in/oliver-linow-7461261b6d](https://www.linkedin.com/in/oliver-linow-7461261b6d)



11:10 – 11:40

### Disinformation and societal resilience



**Paula Gori** is the Secretary-General and Coordinator of EDMO. She joined the School of Transnational Governance at the European University Institute in 2017 where she is a member of the management team. Prior she was the Coordinator of the Florence School of Regulation – Communications and Media, which offers training, policy and research activities on electronic communications regulation and competition and she collaborated with the Centre for Media Pluralism and Media Freedom, which she coordinated during the initial set-up phase back in 2012. She was for several years the Scientific Coordinator of the Annual Conference on Postal and Delivery Economics and she is one of the authors of the report for the European Commission on European Union competences in respect of media pluralism and media freedom. Paula has a legal background and is a qualified civil mediator. @goripaula [www.linkedin.com/in/paula-gori-7862b425](https://www.linkedin.com/in/paula-gori-7862b425)

11:40 – 12:10

### Cyber trends to monitor and manage in 2023

How CISOs in broadcasting can learn from 100 cyber surveys and 1,000 data breaches this year, to be safer next year.



**Kevin Duffey** is Chief Executive of the Cyber Rescue Alliance, Co-Chair of Cyber Committee at The Security Institute, and Advisor to the Police Digital Security Centre in the UK. Cyber Rescue helps hundreds of large & medium sized firms worldwide. Members include Astra Zeneca, Bank of China, Bank of England, Janus Henderson, Kaplan, Penguin, Petrofac, Phoenix, Rothschilds, Sainsbury's, Tesco, Virgin and regulators in several countries. <https://www.linkedin.com/in/kevduffey/>

## SESSION 2: MEDIA SYSTEMS' VULNERABILITIES

MODERATED BY ALVARO MARTIN SANTOS (RTVE)



**Alvaro Martin Santos** is Head of Cybersecurity Processes in RTVE, where started working on IT Security and IAM 14 years ago. He is Computer Science Engineer and is pursuing a PhD in Industrial Engineering, with a specialization in Security of IP broadcasting technologies at UNED - Universidad Nacional de Educación a Distancia (Spain).

13:10 – 13:40

### HBB TV security

While HbbTV is based on web technologies, there are technical differences, practical differences and a different context which raise their own security issues. This session will cover a number of topics including ones that apply to all HbbTV deployments (e.g. end-user involvement, man-in-the-middle attacks on the broadcast signal) and ones that apply to specific implementations such as TV sets.



**Jon Piesing** (TP Vision) played a major role facilitating the convergence of the original French and German initiatives which together become HbbTV. He is vice-Chair of the HbbTV Association and Chair of the Specification Group. He is Chair of the Technical Module of the DVB project and a member of the Steering Board there. He is a member of the Steering Committee of the CTA Web Application Video Ecosystem (WAVE) project and acting as project manager of their device testing developments. He has been a leading figure in the development of specifications for integration of TV and interactivity for more than twenty years. This has included being the chairman of groups in DVB, the Open IPTV Forum and the UK DTG. Jon is now Director, Standardisation for TP Vision (who manufacture Philips TVs for Europe and a number of other territories). He has previously held senior positions related to standardisation in several different units of Philips.

13:40 – 14:10

### 5G- vulnerabilities



**Karsten Nohl** is a cryptographer and security researcher. He likes to test security assumptions in proprietary systems and typically breaks them. Karsten is the Chief Scientist at SRLabs in Berlin and Hong Kong where his work includes testing telcos for hacking issues.



14:10 – 14:40

### The DDoS threat in the media industry

A challenge for all media companies, a quick view on how much DDoS has changed and how the industry is adapting."



Massimo Mollica (CBC/Radio Canada) has over 20 years of experience in various roles within the Telecommunications and IT sectors. He began his career as System Administrator at CBC/Radio-Canada in 2007; since then, Massimo has been instrumental and helped to successfully deliver best-in-class global events, including the Olympics, the Federal Elections, FIFA World Cup, and the Pan Am Games. In his most recent position, Massimo managed the digital infrastructure and data centers throughout Canada, supporting all media platforms, web, OTT and Content Delivery Network management.

<https://www.linkedin.com/in/mollica/>



**Paul Livi** (CBC/Radio Canada) I have been at CBC/Radio-Canada for over 26 years. Telecommunications was my primary role when I first started and this role morphed into Cybersecurity duties. Over the years, I have provided Telecom and Cybersecurity expertise to various special events such as the Olympics, Federal Elections, the FIFA World Cup, and the Pan Am Games. In my current role, I manage the Cybersecurity Team at CBC/R-C which provides oversight, ownership and operation of various Cybersecurity tools such as cloud access security brokers, social media protection, email protection and a central security incident and event management platform.

14:40 – 15:10

### Audio over Insecure Protocols

A look at the security implications of moving media from dedicated copper cables to IP networks.



**Morgan Hill** (Holoplot). Morgan's hobbies include operating mixing desks for conferences, his day job involves large speaker deployments, and he is fascinated by security. Twitter @pcwizz

15:10 – 15:40

### JT-NM tested: results on Cybersecurity- state of the industry

Overview of the results of the JT-NM tested cybersecurity scans and implementation of R143 by vendors

**Gerben Dierick (VRT)**

16:00 – 17:00

### Vendor's voice: how are they improving their product security

- **Geoffrey Crespin** (EVS) is well-versed in cyber-security matters, having previously worked as a cyber-defense consultant for European governments and institutions, and in the telecommunications sector. He joined EVS in 2020 as Senior Solutions Architect, helping customers design infrastructures that ensure their assets and workflows are properly secured.



- **Dr James Westland Cain** is Chief Software Architect at Grass Valley, where he develops innovative software to support collaborative workflows in News and Sports Television Production. Responsible for software architecture across the whole of Grass Valley, James is leading the transition to developing microservice based applications. His work research interests include file systems innovation and browser based video production. He was granted a PhD in Advanced Software Engineering by Reading University and is a Visiting Research Fellow at Brunel University. He has over twenty international patents granted, has published dozens of refereed academic papers and regularly speaks at conferences.



- **Arne Bönninghoff** is Senior Solution Architect with Riedel Communications, Wuppertal, Germany, for four years. Currently, he is responsible for the unified architecture of Riedel's future product landscape. He has participated in many interops and is an active participant in several industry organizations including the Audio Engineering Society, Advanced Media Workflow Association, and SMPTE. Before joining Riedel, Bönninghoff was an accomplished audio and video engineer for live productions. He received an engineering diploma from Fachhochschule Düsseldorf, Germany and resides in Mülheim Ruhr, Germany. <https://www.linkedin.com/in/arne-b%C3%B6nninghoff-a1a83023/>





- In the role of Vice President and Chief Architect at Avid, **Shailendra Mathur** is responsible for the technology and architecture of Avid's products. Shailendra has been awarded several patents and presented papers at numerous conferences, panels, and journals. These are on topics that such as AI, computer vision, medical imaging, media creation tools, security, immersive entertainment, asset management, 4K/HDR, high performance computing and cloud technologies. With more than 25 years of innovation experience in the media industry, Shailendra was privileged being one of the team members who received the Philo T. Farnsworth Prime Time Engineering Emmy Award on behalf of Avid in 2018.



17:00

End of Day 1

## PROGRAMME

WEDNESDAY 19 OCTOBER 2022 (10:00 – 17:30 CET)

### KEYNOTE

MODERATED BY LUCILLE VERBAERE (EBU)

10:00 – 10:30

**Fighting censorship and surveillance with Tor Raya Sharbain (ToR)**



Internet freedom and digital rights advocate, training journalists and human rights defenders in Tor and digital security.

<https://twitter.com/rayasharbain>, <https://www.linkedin.com/in/rayasharbain/>

### STATUS ON REGULATIONS

MODERATED BY LUCILLE VERBAERE (EBU)

10:30 – 11:00

**Cybersecurity regulation in Europe**

A practical overview of the current cybersecurity regulatory framework in Europe.



**Dennis-Kenji Kipker** is one of the leading minds in cybersecurity in Germany and works as a Professor of IT security law at the University of Applied Sciences Bremen at the interface of law and technology in information security and data protection. He is also active as Legal Advisor of the German technology association VDE, CERT@VDE in Frankfurt a.M. and, as a Member of the Board of Directors of the European Academy for Freedom of Information and Data Protection (EAID) in Berlin, he plays a key role in shaping future European and German cyber policy. As Managing Director of the private consultancy agency Certavo in Bremen, he is also committed to the development and implementation of pragmatic solutions for the digital compliance of companies internationally. <https://de.linkedin.com/in/prof-dr-dennis-kenji-kipker-51867449>

### SESSION 3: CASE STUDIES

MODERATED BY LUCILLE VERBAERE (EBU)

11:15 – 12:00

**Elections time in France**



**Julien Tordjman (FTV)**

<https://www.linkedin.com/in/julientordjman/>

**Aurelie Cotton** is head of cyber strategy for finance, telecom, media and industry sectors in the strategy department of the French national cybersecurity authority ANSSI. Previously, she worked 10 years in the private sector in security, crisis management and cybersecurity positions. Before joining the ANSSI in 2021, she was security and cybersecurity director for a French transportation engineering company.





**Nadjim Yala (FFMI)**

12:00 – 12:30

### Operating the BBC Infosec knowledge graph

The BBC Information Security knowledge graph supports our critical information security processes (risk management, incident management, security monitoring etc) by providing a data model that captures the critical properties of entities pertinent to each core security process. This presentation (building on the prior year) will walk through how we are operating and using the graph to support our processes and ensure efficient cross team communication and coordination.



**Bruno Garrancho** leads BBC Infosec Engineering and Architecture teams. Bruno is accountable for the Detect space capability across the BBC. Before joining the BBC in 2013, he worked for CGI and Logica leading CyberSecurity teams.

**Andy Sands (BBC)** Responsible for the BBC's Cyber Security Operations team which includes a 24x7 SOC who provide incident response, security monitoring, threat intel and vulnerability scanning services and the BBC's digital forensics function.



## SESSION 4: CYBERSECURITY LATEST TECH, TOOLS AND PRACTICES

MODERATED BY GERBEN DIERICK (VRT)



**Gerben Dierick** combines running the network team at VRT with his role as Information Security Officer. He currently co-chairs the EBU's Media Cybersecurity Group and lectures on networking and cybersecurity topics at the University College Leuven Limburg.

14:00 – 14:30

### Fuzzing media analysis tools

MedialInfo is a free and open-source program that displays information about media files: duration, video/audio codecs, bitrate, aspect ratio... It's often included in media file ingest pipelines and this makes it a juicy target for an attack. In this presentation, we'll talk about things that we discovered while performing fuzz testing on MedialInfo and how to improve the security of this stage of the media file ingest pipeline.



**Marco Bellaccini (RAI)** I'm an IT Infrastructure Architect at RAI. I design reliable, secure and automated IT systems for Television Production. I'm an Electronic Engineer (EE MSc). I joined the TV Engineering Department of RAI in October 2014. Previously, I did Robotics research at The Biorobotics Institute of Sant'Anna School of Advanced Studies and at Sapienza University of Rome. Personal website: <https://bellaccini.it> - Twitter: <https://twitter.com/lasagnasec> - GitHub: <https://github.com/marcobellaccini>

14:30 – 15:00

### How Zero Trust can help your organization keep safe?

This presentation will bring insights into how the Zero Trust framework can help organizations improve their cybersecurity posture and resilience. We will also provide a concrete example on how it helped Microsoft's customer, Funke Mediengruppe, who suffered a cyber-attack in 2020.



**Nathalie Mombelli (Microsoft)** has been active in the field of security over the past 20 years, both at the corporate and governmental level. Among others she used to work for the Federal Criminal Police as investigator and then immersed herself into the exciting world of cybersecurity as a consultant and now as a Security Executive at Microsoft, supporting Public Sector organizations to shape their cybersecurity strategy and implement overall resilience to cyber attacks.



15:00 – 15:30

### Cyberinsurance market trends

This presentation examines the cybercrime ecosystem, its resulting impacts on the insurance market, and expectations for the future role of cyber insurance in managing enterprise risk.



**Levi Gundert** is the Chief Security Officer at Recorded Future, where he leads the continuous effort to measurably decrease operational risk for clients.

Levi has spent the past twenty years in both the public and the private sector, defending networks, arresting international criminals, and uncovering nation-state adversaries. He's held senior information security leadership positions across technology start-ups and financial enterprises. He is a trusted risk advisor to Fortune 500 companies and a prolific speaker, blogger, and columnist.

15.45 – 16.15

### Solid and WebIDs for personal online data vaults

Solid and WebIDs are becoming W3C standards that enable people to easily compile and reuse their data, regardless of where it is stored.



**Tom Haegemans (Digita)** Tom is Co-Founder and CTO of Digita and Adjunct Professor at the Catholic University of Leuven. Before founding Digita, Tom was a Visiting Researcher at Cambridge University and a PhD Researcher at the Catholic University of Leuven. His research about data quality and personal data stores is published in well respected journals.

<https://twitter.com/TomHaegemans>; <https://www.linkedin.com/in/tomhaegemans/>

16:15 – 16:45

### The impact of quantum technologies on data and cybersecurity

Analyzing how quantum technologies will impact the way we handle and protect data.



**Samy Bjaïji (Quebec Quantique)** works with the industrial sector to help promote the adoption of quantum technologies and quantum safe cybersecurity. He has previous experience working with the aerospace and the micro-electronics sector.

<https://www.linkedin.com/in/samy-bjaïji-b-ing-mba-662463113/>

## KEYNOTE

MODERATED BY GERBEN DIERICK (VRT)

16:45 – 17:15

### Hacking the Metaverse and Extended Realities

As the industry looks towards mass adoption of XR and build brave new virtual worlds and ultimately the Metaverse, what are the traditional and novel risks and how can we get ready for the emerging and disruptive threats? What role does XRSI play in helping build Security, safety, and privacy in the emerging technological ecosystems? Kavya Pearlman, Founder & CEO of XRSI will share the insights, new types of cyber attacks, and potential solutions on the horizon.



**Kavya Pearlman** is well known as the "Cyber Guardian," founder & CEO of the [XR Safety Initiative \(XRSI\)](#). Kavya Pearlman is an award-winning cybersecurity professional with a deep interest in immersive and emerging technologies. Kavya is a pioneer of the novel [XRSI Privacy and Safety Framework for the Immersive Technologies Domain](#), Security awareness in the Metaverse, and various baseline security and privacy standards for Emerging Technologies. She has won several awards for her work and has been named one of the Top twenty Cybersecurity influencers for four years, 2018-2019-2020-2022, and again for the year 2022 by IFSEC Global. Kavya serves as the key member of the [Global Coalition for Digital Safety at the World Economic Forum \(WEF\)](#) and is part of the new Metaverse Initiative at WEF. Kavya currently advises over 20 global governments on global policies for emerging technologies and human rights considerations and provides oversight to several key open source efforts on Metaverse-related technologies, including [The Metaverse Standard Forum](#) and [Responsible Metaverse Alliance](#)

[Forum \(WEF\)](#) and is part of the new Metaverse Initiative at WEF. Kavya currently advises over 20 global governments on global policies for emerging technologies and human rights considerations and provides oversight to several key open source efforts on Metaverse-related technologies, including [The Metaverse Standard Forum](#) and [Responsible Metaverse Alliance](#)

Kavya has previously advised Facebook on third-party security risks during the 2016 US presidential elections and worked as the head of security for the oldest virtual world, "Second Life" by Linden Lab. Kavya is the leading voice in cybersecurity, privacy, and Ethics for Emerging technologies including AR, VR, and XR, exploring cross-sections of 5G, AI, and BCI - leading Standards development and promoting Diversity and Inclusion in Immersive Technologies. Kavya has founded The CyberXR Coalition, which focuses on diversity and inclusion and the cross-section of Cybersecurity and XR, helped launch a trustworthy XR news platform, ReadyHackerOne, established a Medical XR Advisory Council and Metaverse Reality Check (The MRC). Kavya is constantly exploring new technologies to solve current cybersecurity

# MEDIA CYBERSECURITY SEMINAR

AN EBU EVENT

## SHAPING A MORE SECURE MEDIA INDUSTRY



challenges and currently advises several governments and big tech corporations on technology policy making and program development globally. Kavya is a category Queen who has pioneered XR Safety Domain and won many awards for her work and contribution to the security community

---

### CLOSING

---

17:15 – 17:30

**Outlook 2022**

Rainer Jochem (SR)

---