

## Impact of AI on Media

Speakers

THURSDAY 8 NOVEMBER

### WELCOME ADDRESS

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09:45 – 10:00

**Antonio Arcidiacono** is the EBU's Director of Technology & Innovation.

Antonio has extensive experience in conceiving, developing and taking new products and services to market.

He is an internationally acclaimed expert in digital television, satellite communications, IP-based multimedia services and mobile telecommunications. With strong knowledge of the European market, he has worked closely with the leading players in the fields of Digital TV and Multimedia Services, and with European institutions at a technical, standardization, regulatory and competition level.

Antonio was Director of Innovation, and a Member of the Management Committee, at Eutelsat from 2008 -2018 where he was responsible for launching innovative IP based satellite services. He joined Eutelsat in 1990 and took part in key phases of its development from an international organization to privatization in 2001 and to the IPO in 2005.

Before working at Eutelsat, Antonio worked for the European Space Agency and started his career working for Telespazio and Selenia Spazio.

Antonio has a Doctorate in Electronics & Telecommunications Engineering from the University of Pisa. He is fluent in Italian, English and French.

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### KEYNOTE SESSION

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10:00 – 10:30

**The Future of Artificial Intelligence: Lessons from History**

Three lessons are shared from the history of artificial intelligence with a view to informing our future actions.

**Jonnie Penn** is a technologist, historian of science, and #1 New York Times bestselling author. He is currently an Affiliate at the Berkman Klein Center at Harvard University and a PhD candidate at the University of Cambridge. He has been a fellow at Google, the MIT Media Lab, and the Royal Society of the Arts. He holds degrees from the University of Cambridge and McGill University. As a teenager, he co-

founded The Buried Life, a popular youth movement and cult-hit TV series syndicated in 70+ countries that asks, "What do you want to do before you die?" Jonnie volunteers on the IEEE's Working Group on a Standard for Child and Student Data Governance (IEEE P7004).

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### SESSION 1: DEMYSTIFICATION

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10:30 – 11:00

**Demystifying AI: what is it? What is it not?**

**Alberto Messina** (RAI) started as a research engineer with RAI in 1996, when he completed his MS Thesis about objective quality evaluation of MPEG2 video. After starting his career as a designer of RAI's Multimedia Catalogue, he has been involved in several internal and international research projects in digital archiving, automated documentation, and automated production.

His current interests are from file formats and metadata standards to content analysis and information extraction algorithms. R&D coordinator since 2005, he leads research on Automated Information Extraction & Management/Information and Knowledge Engineering, where he is author of more than 80 publications. He has extensive collaborations with national and international research institutions, in research projects and students tutorship.

He has a PhD in Business and Management, with a specialisation in the area of Computer Science. He has been active member of several EBU Technical projects, and now he leads the EBU Strategic Programme on Media Information Management. He worked in many European funded projects including PrestoSpace, PrestoPrime, TOSCA-MP, IBC Award - winning VISION Cloud, BRIDGET and currently in MULTIDRONE. He has served in the Programme Committee of many international conferences, including Web Intelligence 2009-2013 and 2016, Machine Learning and Applications 2009-2013, MMM 2012, CIKM 2016. He's ACM Professional member since 2005 and nominated Contract Professor of Multimedia Archival Techniques at Politecnico di Torino from 2012 to 2015. He actively participates in International Standardisation bodies, mainly in EBU and MPEG, where he contributed to MPEG-A, MPEG-7 and MPEG 21 extensions.

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## SESSION 2: HYPE AND REALITY

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11:30 – 12:30

**Round table: Expectations and motivations for AI; Where are we in the Garner Hype Cycle? Do the results meet expectations and strengthen motivations?**

**Alberto Messina** – see above.

**Graeme Philipson** (Ed Project, BBC R&D) currently work in BBC Research & Development on the AI in production project. In this project we are investigating how we can use techniques from AI, Machine Learning, and Computer Vision to tackle some of the problems found in television production. Prior to working at the BBC I have studied neuroscience at Edinburgh University, and worked on a 3D motion capture system used in clinical gait analysis.

**Aleksi Rossi** (YLE) Head of interfacing, bringing in the future by enabling internet by agile culture, shared core services and making it personal.



**Ezra Eeman** (EBU) Ezra Eeman is Head of Digital at the EBU Media Department. In his position Eeman works closely together with EBU Members on their digital strategy and with key digital actors in the industry to exchange experience and to inspire other members. Ezra Eeman comes to the EBU from Flemish Member VRT where he was head of VRT Start-Up, a digital innovation lab founded in mid-2013 to figure out new digital concepts and formats. In 2012, Ezra Eeman received a Fulbright scholarship to investigate the changing media landscape at the City University of New York. There he specialized in the latest technologies, platforms and business models.

## SESSION 3: USE CASE 1

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13:30 – 14:00

### **BNR SMART Radio: A Personalized Playlist of News Radio**

This presentation will focus on SMART Radio, a new and innovative way for users to create their own playlist based on BNR's radio programmes and podcasts. BNR uses several AI solutions to automatically segment and tag news radio into small fragments, which users can easily access through BNR's own app.

**Joeri Nortier** is the Product Manager at BNR Nieuwsradio and is responsible for developing and improving BNR's digital products. Since joining BNR in 2016, he has worked on making BNR's podcasts accessible to a larger audience, a brand new podcasting app, 'BNR's Expert Podcast Network' and BNR SMART Radio,

which combines cutting-edge AI with on-demand radio. As of 2018, he is a part of BNR's new multidisciplinary Audio On-Demand team, which drives BNR's transformation from a linear radio station to an important player in the on-demand audio market.

## SESSION 4: USE CASE 2

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14:00 – 14:30

### **A robot called Voitto - from content creation to AI ethics**

Yle's Voitto the robot started as an humble experiment. Now Voitto is probably our most important tool to discuss, test and understand how we humans will be working together with AIs in the future.

**Jarkko Ryyänen** is a computer geek who loves games and sci-fi. Recently he has been working with Yle's robo-journalist Voitto and vote compass and other vote related projects.

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**Aki Kekäläinen** is the Head of Web Development and Lead Designer in Yle News Lab. He is in charge of designing and developing Yle's digital services for news, sports, current affairs, regional and weather. Aki's favorite projects right now are Voitto, an experimental robot journalist growing to be a lot more, new machine learning based smart notifications for ultra-personalisable Yle News Watch app and gamification of Yle's election machine.

## SESSION 5: USE CASE 3

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14:30 – 15:00

### **Multilingualism in News**

**Peggy van der Kreeft** (Deutsche Welle) is an Innovation Manager at the Research and Collaboration Projects Department of the German world broadcaster Deutsche Welle. She has been involved in a wide range of projects, focusing on new developments in the area of human language technologies applied to broadcast content.

## SESSION 6: USE CASE 4

15:30 – 16:00



**Optimizing the use of AI for sport\*** defining the passion producing sports for Media What is our Mission Content - The Source for everything Content Challenges AI comes to our Content Specification Intelligent Content - Possibilities Next Generation usage through AI

**Christiaan Verwaaijen** (SportCast) 28 years in Broadcast, 14 years as a Chief Engineer in Charge technical responsible for Live Sports Productions like Formula1, Touring Car, Skiing, Soccer, Athletics etc. Building and operating large production Units Worldwide. since 2007 as Senior Technical Manager for Sportcast GmbH a 100% subsidiary of the German Bundesliga (DFL) building and operating Media Infrastructures and Workflows in the DFL Group. German Soccer Archive, Production/Delivery Platforms etc.

## SESSION 7: IMPACT AND CONSEQUENCES

16:00 – 17:00

**Group discussions: sharing views**

**What are the ethical barriers for public service broadcaster?**

**How does AI impact on working structures and organisations?**

**Is AI an opportunity for new content?**

**What technologies are key and what skills are needed?**

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## SESSION 8: HUMAN RESOURCES FOR AI



09:00 – 09:30

**What is a winning AI team? Roles, profiles and skills**

What are the competences needed to install deep learning algorithms in production systems? How to find and organize them? In this presentation, we'll share our experience and discuss the different models to succeed in this new field.

**Leonard Bouchet**, aged 40, currently leads the national group of experts about Data and Archives in the Swiss Broadcasting Corporation (SBC). Since 2016, he is the Head of Data and Archives at RTS Radio Télévision Suisse (French speaking part of the SBC). He has previously lead the Digital Production for RTS and works with passion for public media since 2009



09:30 – 10:00

**Developing AI literacy via adapted educational programmes**

**Prof. Stéphane Marchand-Maillet** is Associate Professor in the Department of Computer Science at the University of Geneva, Switzerland, where he leads the Viper group. His research is directed towards large-scale, high-dimensional distributed machine learning and information mining and indexing, with applications to data modelling and prediction. He has authored, co-authored or edited a number of publications on these topics. He and his group are part of several national and European and international projects in the domain. He is Senior PC Member of the International Joint Conference on AI (IJCAI, one of the oldest established conferences in AI). He was general co-chair of the International Conference of the ACM-SIG on Information Retrieval in 2010 (ACM-SIGIR 2010), general co-chair of the 16th IEEE Conference in Business Informatics in 2014 (IEEE-CBI 2014) and Technical Program Chair of the International Conference on Similarity Search and Applications in 2018 (SISAP 2018).

## SESSION 9: ETHICS, DATA PROTECTION (GDPR) AND RIGHTS



10:00 – 10:30

**The Case for Public Service Recommender Algorithms**

In this talk we lay out the role for public service organisations within the fairness, accountability, and transparency discourse. We explore the idea of public service algorithms and what role they might play, especially with recommender systems. We then describe a research agenda for public service recommendation systems.

**Ben Fields** is Lead Data Scientist at the BBC. There his work focuses on recommenders, behavioural analytics, and data modelling. Previously, he split his time between post-doc research on music social networks and running the data-centric agency Fun and Plausible Solutions. He has a PhD from the Computing Department at Goldsmith University of London. He is an expert on metadata, structured data, the semantic web and recommendation systems. He co-chaired the annual Digital Libraries for Musicology workshop, is an accredited beer judge and homebrews beer. He rides a bicycle. He thinks bios in the third person are weird but figures that's how they're meant to be written.

10:30 – 11:00

**A report from ACM RecSys in Vancouver**

**Pierre-Nicolas Schwab** (RTBF)

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## SESSION 10: GOING FORWARD

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11:30 – 12:30

**EBU action plan:**

**Identifying key EBU actions to support the successful introduction of AI in Members' business plans. Interactive session and online polls.**

Dr Hans Hoffmann 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 production technologies department until moving to the EBU in 2000. In the EBU he has been leading many activities on media integration, production technologies, video codec evaluations, he established the EBU HDTV testing lab, and work with EBU Members on IT based digital workflows and recently UHDTV. He has been author of many EBU Technical documents; IEEE papers and is a standing speaker and contributor to international conferences. Hans is a fellow of the SMPTE and a member of the SID and FKT and IEEE and was the SMPTE Engineering Vice President from 2011-13.

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12:30 – 13:00

**Where is all this taking us in 5 years?**

**Jean-Pierre Evain** joined the EBU's Technical Department in 1992 to work on "New Systems and Services" after several years spent in the R&D laboratories of France-Telecom (CCETT) and Deutsche Telekom. He is now looking after "Media Fundamentals and Production Technologies" and coordinates all EBU technical activities concerning metadata and new production architectures. He is the co-author of several EBU metadata specifications. He is actively promoting the use of semantic web technologies in broadcasting. He is the Project Manager of the joint AMWA-EBU FIMS Project on Service Oriented Architecture. He represents EBU in many standard groups and industry forums like AES, ETSI, IPTC, MPEG, SMPTE, UK-DPP, W3C, among several others.

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