

# MDN WORKSHOP 2021

ALL THE TIMES ARE CENTRAL EUROPE TIME (CET) – THIS IS DRAFT VERSION SUBJECT TO MINOR CHANGES

## TUESDAY 25 MAY 2021

09:00 – 09:20 OPENING

### SESSION 1

09:20 – 10:00 DESIGNING METADATA INTO AN ORGANISATION'S DNA

*The BBC faces some big metadata challenges which are not only technical but also editorial, organisational and cultural. Having UX & service designers collaborate with engineers has been crucial in making change happen. This presentation will showcase how various Design disciplines have helped the BBC improve its metadata: from the design of our pan-BBC tagging tool, to mapping out more user-centric workflows, and how we had to think creatively to get people to care and collaborate along the way. The future of Metadata involves not just machines but also humans and politics, and it can be designed!*  
**Alice Gregory, Ting-I Wu, Blaise Galinier (BBC)**

10:00 – 10:20 ENRICHING MUSIC METADATA: RADIOFRANCE-MEWO OPEN INNOVATION PARTNERSHIP

*Presentation of the open innovation partnership between Mewo and Radio France. Mewo is a French start-up which has developed a SaaS solution designed for music professionals and industries. It consolidates in one platform all the music, making music management simpler and team collaboration more efficient. This software especially helps to harmonize the metadata of different music catalogues. Therefore, it has held the interest of Radio France since its teams working at the Discotheque have been seeking concrete solutions to catalogue all music files. Indeed, Radio France Discotheque owns the largest music catalogue in Europe, with a million physical disks and three million digital files registered to date.*  
**Adeline Beving (Radio France), Rémi Agostini (Mewo), Julien Pauchet (Radio France)**

10:20 – 10:40 *Coffee break*

### SESSION 2

10:40 – 11:20 IMPLEMENTING A NEW DATA REPRESENTATION MODEL TO UNSCRAMBLE DATA AT INA

*French national audio-visual institute (INA) aims to collect, safeguard, digitize, store and promote the archives of the French television and radio. Guardian of the French audio-visual heritage, INA ensures a unique experience and expertise in structuring and enhancing its archives, in an approach focused on users and clients worldwide. INA's patrimonial legal deposit and professional archives, including metadata from media streams, legal or technical assets and content, have been structured on disparate siloed databases which are used by in-house applications that are also isolated from each other. In order to meet the needs for analysis, synchronization and operation of this vast amount of data, the architecture of a new data representation model has been designed to host all INA's archives metadata. Our presentation aims to give insights on this new data representation model, focusing on the main challenges and opportunities associated with the integration of metadata from INA's archives. To complete our contribution, some use cases involving queries for information extraction will be explored.*  
**Eleni Kogkitsidou, Axel Roche-Dioré (French National Audiovisual Institute, INA)**

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11:20 – 11:40

## BRIDGING THE CMS WORLD WITH THE LOD (LINKED OPEN DATA)

*CMS (content management system) are software for creating, modifying and managing content on websites or other media. The contents of the publications or pages as well as the layouts of Wordpress, Drupal, Joomla! or TYPO3 generally work with a MySQL / Maria DB database type which only indexes internal content. Replication of links or data (long, expensive, fragile process, etc.) is scalable. In an increasingly connected world, interacting with external tools and related sites is of great interest. There are indeed interconnected semantic databases according to the principles of LOD (Linked Open Data). The objective of the prototype is to introduce in a market CMS a search interface that queries via API a semantic DB that aggregates and structures different bodies of explicit data (linked together by meaning rather than syntax)! This opens the way to connect two worlds: that of CMS and that of Open Data! It is a tool which should put the substance of "search and query" back at the center of the problem, to allow the navigation interface to evolve towards structured and contextual representations!*

*TITAN asbl is in charge of such a development to interconnect the future site of the Belgian Commission for UNESCO and the "Digital" BD of the documentary heritage of the FWB.*

*The presentation to MIM MDN will describe the WIP: the concepts and the development undertaken by the partners.*

**Roger Roberts (TITAN / UNESCO)**

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11:40 – 12:00

## FROM EBU CCDM TO A YLE DATAMODEL

*Yle datamodel is an adaptation of EBU Core and CCDM. It is an important tool for communication and developing along with API interface work. Why did we choose CCDM, how have we proceeded and what have we learned so far?*

**Tanja Rasila, Jari Ruotsalainen (Yle)**

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12:00-13:00.

*Lunch break*

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## SESSION 3

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13:00 – 13:20

## CONTENT ORIGIN GRAPH: MAPPING PRODUCTION DATA AT THE BBC

*At the BBC there is a wide variety of systems used to produce content, but nothing that links them together to provide an overview. This means that we lack visibility on how assets are used outside the systems that created them, so there are important questions about our production patterns that we cannot answer. In this presentation I will discuss the Content Origin Graph (COG), which aims to meet this problem by mapping our production data in a graph database.*

**Stuart Jennings (BBC)**

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13:20 – 14:00

## MANAGING CONTENT METADATA IN AMAZON NEPTUNE

*At Yle, three closely interrelated microservices used for managing and serving content metadata were migrated from RDS to the Amazon Neptune graph database. The project was conducted to build competence on graph technologies, to build infrastructure for enabling novel use cases for the data and, make handling of messy data manageable and to make complex queries more performant. In the presentation, we discuss the findings and lessons learned from the project.*

**Tuomo Virolainen, Matias Kainulainen, Teemu Kalvas (Yle)**

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14:00 – 14:20

## METAGRAPH – A GRAPH-BASED REPOSITORY TO CONNECT ARBITRARY SYSTEMS

*Usually, data objects are linked across systems by identifiers. Persisting identifiers from other systems enhances the value of local data. Data can be linked to create a network of information. The problem: the network of information and its value is not available to other systems. The idea: provide a registry of identifiers and their linking. The benefit: the network of information can expand far beyond a single system and arbitrary systems can work with the network of identifiers. This is the goal of Metagraph. The presentation will introduce the basic concepts and share implementation experiences using the graph database Apache Jena.*

**Jürgen Grupp (SWR)**

14:20 – 14:40	<p><b>METADATA - FROM PLANNING TO ARCHIVE</b>  <i>Demonstration of the new planning tool that has enable us to create coherent metadata flow through our systems.</i>  <b>Henrik Johansson, Mateusz Piekut (SVT)</b></p>
14:40-15:00	<p><i>Coffee break</i></p>
<p><b>SESSION 4</b></p>	
15:00 – 15:40	<p><b>FINAL ACHIEVEMENTS AND NOVEL USE CASES FROM THE DWERFT PROJECT</b>  <i>Following the presentation of 2020, the dwerft research project will present final achievements as well as several novel usage scenarios and business models - automatic creation of cue sheets, aligning scene information to timecodes providing search results on the scene level, exporting metadata to VoD platforms on a click, annotation on existing content with AI, automatic creation of subtitles, as well as new Business Models like Telescoping, creation of AI training material, Footage-Platforms, metadata-based controlling of Movie productions or even Predictive &amp; Prescriptive Analytics.</i>  <b>Mark Guelbahar (IRT), Peter Effenberg (Transfermedia Production Services)</b></p>
15:40 – 16:20	<p><b>GOVERNANCE OF DATA AT FTV FOR BETTER USAGE AND VALORISATION OF THE PROGRAMS</b>  <i>The presentation is on how France Television has implemented a group wide data first strategy and governance to maximise exposure to the teams and increase the exploitation of data within their content production process. The presentation will focus on how the following objectives have been reached:</i></p> <ul style="list-style-type: none"> <li>- Define and Implement a group wide data lifecycle and management strategies</li> <li>- Expose data and assets to all business applications and units in the right context</li> <li>- Shorten Media Production delivery time</li> </ul> <p><i>We will also cover the delivery and ideation process:</i></p> <ul style="list-style-type: none"> <li>- Automate catalogue processing (Creation, Indexing, Enrichment) and data aggregation</li> <li>- Connect all Lines of Business and operational units</li> <li>- Enable digital transformation in less than 6 months</li> <li>- Onboard new use cases triggered along the way to adapt data strategy</li> </ul> <p><i>Finally, we will cover the outcomes of the strategy implemented:</i></p> <ul style="list-style-type: none"> <li>- 90%+ of group assets and data exposed in the right context to all operational units</li> <li>- 30 % Data Management cost efficiency</li> <li>- Guarantees data integrity all along the assets' lifecycles</li> <li>- Time to access assets divided by two through efficient search and UX</li> </ul> <p><b>Louis Matignon (Perfect Memory), Matthieu Parmentier (FTV)</b></p>
16:20 – 17:00	<p><b>IPTC NEWSCODES: CONTROLLED VOCABULARIES FOR THE NEWS MEDIA</b>  <i>Since the year 2000, IPTC's NewsCodes, a set of controlled vocabularies, has been used by the world's news media as a way to categorise and classify news content for syndication, discovery and re-use. The most successful of the NewsCodes family is Media Topics, a 1200-term subject classification taxonomy intended for describing the topics of news stories, which is now published in 12 languages and available in both human- and machine-readable formats. We will discuss how the NewsCodes are created and maintained, describe some use cases and real-world usage scenarios, and provide suggestions for how they can be integrated into a newsroom's production systems and workflow.</i>  <b>Brendan Quinn (IPTC), Jennifer Parrucci (New York Times)</b></p>

**WEDNESDAY 26 MAY 2021****SESSION 5**

09:00 – 9:20

**HOW VRT AUTOMATED THE SEGMENTATION OF PROGRAMS WITH AI***To be completed***Marijn Daniels, Jasper Degryse (VRT)**

9:20 – 10:00

**ANALYSING USER NEEDS FOR AUTOMATIC METADATA CREATION AND ADVANCED SEARCH IN THE TAILORED MEDIA PROJECT**

*The TailoredMedia project aims to automate metadata creation for improving discoverability of audiovis The TailoredMedia project aims to automate metadata creation for improving discoverability of audiovisual content by leveraging recent advances in AI for natural language processing and computer vision tasks, and interlinking these tools with contextual information. Most AI tools work in isolation, looking only at a piece of audiovisual content, neglecting data that may be available from the production process or legacy archive documentation. This data can be used to provide weak labels for training, guide the automatic tools or verify their results across different modalities. One important aspect is centering such processes around users who create metadata, operate automated processes and use search tools. The technologies should support archivists, editors and journalists in their daily work or facilitate their work, since a lot of manual tasks are currently necessary (e.g. manual keywording by editors, enrichment and quality control by archivists). To get a detailed overview of the target groups and their workflows, requirements, needs and challenges, the project team performed an extensive requirements analysis by conducting workshops, interviews, focus group discussions as well as online questionnaires. In this contribution, the project team will provide insights into the project as well as first findings from the requirements analysis and conception phase. The project consortium includes ORF and Österreichische Mediathek (the Austrian archive for sound recordings and videos on cultural and contemporary history) as user organizations.*

**Werner Bailer (JOANNEUM RESEARCH), Christoph Bauer (ORF), Gernot Rottermann (FH St. Pölten)**

10:00 – 10:20

**TAILORCAST, A PODCAST RECOMMENDATION PLATFORM**

*TAILORCAST is a recommendation platform for talk audio, able to deliver a customized linear listening experience - like traditional radio- but adapted to listeners' interests, behaviour and context, like podcasts. Our vision is to open this platform to radios, independent content creators and distribution channels; thus, we would create a talk audio marketplace, where creators would supply premium content, channels would deliver that content to their audience and PRISA Radio would provide the recommendation engine and would generate revenues for both parties.*

**Diego J. Pruneda Paz (PRISA Radio PRISA Radio)**

10:20 – 10:40

*Coffee break***SESSION 6**

10:40 – 11:20

**ENABLING AI WITH DATASET ENGINEERING**

*Report about the advancements an current status of RAI's Media Cognitive Services platform. This is a system enabling collection of data from different sources, their analysis and summarisation, annotation and further usage as training sets for AI. AI models are then deployed and used in the supporting infrastructure.*

**Alberto Messina (RAI)**

11:20 – 12:00	<p><b>WHO CAN FIND ANYTHING TO WATCH?</b>  <i>A Fireside Chat with Janet Greco and Justin Hewelt. Independent experts in their own fields, join Justin Hewelt and Janet Greco in a fireside chat that takes in their unique perspectives on the current realities of TV metadata management, content discovery, recommendation and personalisation. This conversation will focus on marketing trends across major operators, from TV Everywhere and Go Products, to streaming provider claims and positioning. It will be supported by evidence of how the UX is presented to viewers in different markets. The two will enjoy a frank exchange as they consider the challenges and benefits to both the TV business and the audiences of the different approaches.</i></p> <p><i>Janet Greco has been an advocate for better TV metadata management for many years. She is known as the founder of an early TV metadata start-up and is currently principal consultant, Broadcast Projects, her consulting business based in Barcelona.</i></p> <p><i>Justin Hewelt is Global Director: Brand, Product and Marketing at PayMedia Consulting Group, his consulting business based in London, where he provides strategic support to the senior management of leading Pay TV and OTT streaming video businesses worldwide.</i></p> <p><b>Janet Greco, Justin Hewelt (Broadcast Projects &amp; Paymedia Consulting Group)</b></p>
12:00 - 13:00	Lunch break
<b>SESSION 7</b>	
13:00 – 13:40	<p><b>ARD/FRAUNHOFER MINING PLATFORM — USE CASES, ARCHITECTURE AND TECHNOLOGY SELECTION</b>  <i>The ARD/Fraunhofer Mining Platform is an extensible and scalable platform for automatic meta data extraction from audio, video, images and text. We'll introduce its goals and use cases, the technology selection process used for selecting and integrating new AI services into the platform, as well as its architecture and our goals for its future functionality.</i></p> <p><b>Jens Fisseler, Ralf Walhöfer (Fraunhofer IAIS)</b></p>
13:40 – 14:00	<p><b>RTS WALL OF FAMES</b>  <i>Clustering faces detected in our archives to enrich our public figures database.</i>  <i>To be completed</i></p> <p><b>Charlotte Bürki, Sébastien Ducret (RTS)</b></p>
14:00 – 14:40	<p><b>GENERATIVE METADATA FOR THE TORSO AND TAIL OF ENTERTAINMENT VIDEOS</b>  <i>Metadata (specially visually enriched metadata) is not just a necessity - but is a key differentiator in ensuring content is discovered. Entertainment video's head, torso and tail have had differential treatment to metadata. While movies like Interstellar have the most enriched metadata, the torso and tail get secondary treatment. This leads to a rich become richer, poor stay poor phenomenon in video too. Equity in discovery is directly related to the ability to generate metadata for the breadth of video.</i></p> <p><i>We present our work in automated metadata creation that takes a hybrid approach. A bottom-up video reasoning system generates several structural artifacts including poster art, trailers, cast information, promotions, brands, title credits, moods, and predict genre automatically. All this is fed into a graph database with global knowledge of TV, and from there on curated by metadata professionals. In total, we have an AI-assisted, metrics driven process and discipline to creation and maintenance of metadata.</i></p> <p><i>We have achieved early commercial success in demonstrating efficiency, SLAs and low costs - all extremely important in taking the metadata vision to reality.</i></p> <p><b>Bharath Mohan, Elvis D'Souza (Sensara Technologies)</b></p>
14:40 – 15:00	Coffee break
<b>SESSION 8</b>	
15:00 – 15:40	<p><b>NEWS ANGLER - TOWARDS DISCOVERING UNEXPECTED CONNECTIONS IN THE NEWS</b>  <i>News Angler - towards discovering unexpected connections in the news. The News Angler project is a collaboration between the University of Bergen and Wolftech, a provider of integrated software solutions for newsrooms owned by TV 2 Norway. Together we are developing News Hunter, a big-data ready Journalistic Knowledge Platform that exploits knowledge graphs in combination with other AI techniques.</i></p> <p><b>Andreas L Opdahl (University of Bergen), Sergej Stoppel (Wolftech)</b></p>

15:40 – 16:20

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**AUTO-TAGGING & EMERGING ENTITIES - TAXONOMY MANAGEMENT WILL NEVER BE THE SAME**

*Auto-tagging & Emerging Entities - Taxonomy management will never be the same*

*"To set the stage, iMatrics will start by presenting their auto-tagging solution. We will then move on to the main topic of Emerging Entities.*

*Most news organizations have realized that keeping a list/database/taxonomy/CV of all the interesting entities they write about, takes a lot of work. Some have built up extensive databases over the years or are using external sources such as Wikidata, but new entities just keep popping up and old ones need to be maintained on top of that. What if you could greatly simplify this process?*

*We will talk about how this is possible using a combination of NLP techniques such as Information Extraction, Named Entity Recognition and Entity Disambiguation. We are also going to tell you a bit about the auto-tagging AI-startup iMatrics latest project in this area, called ConceptCore 2.0.*

***Christoffer Krona (iMatrics)***

16:20 – 17:20

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**VIDEO ASSET PUBLICATION ACROSS DIGITAL CHANNELS**

*Tools for Optimised Digital Video Marketing In this tutorial, we will present a set of tools for optimising the selection, preparation and scheduled publication of your digital video assets. Using predictive analytics, the topics of importance to your audience are suggested for a future date. Relevant videos in your collection can be selected and re-purposed for publication on different social networks. A dedicated platform also provides the means to push video summaries to subscribers on messenger apps. Attendees will see demos, learn about real world examples and receive the opportunity for hands-on experience with the presented tools: Topics Compass (trending topic prediction), Content Wizard (select, repurpose and publish) and 4u2 (messenger platform).*

***Lyndon Nixon MODUL Technology, Samuel Gähwiler (Levuro), Basil Philipp (Genistat), Arno Scharl (webLyzard)***



THURSDAY 27 MAY 2021

## SESSION 9

09:00 – 9:20

### TV 2 AI-HUB AND QA MONITOR- A GATEWAY TO ASR SERVICES FOR A LOW-RESOURCE LANGUAGE

*TV 2 is now providing automatic TTV subtitling on the replay of our daily morning show for the hearing-impaired audience and users. We do also assist our newsroom journalists with automated transcriptions of raw material, incoming live feeds and video stories for publishing. From last month we are also testing auto transcription of our 24/7 NewsChannel and the Sports event channel providing full transcriptions of all live events and content for our journalists. The WER and grammar quality of the output is not perfect, but the goal has been to find what is ""good enough"" compared to no service at all for the target users.*  
**Are Tverberg, Kjetil Espedal (TV 2 Norway)**

9:20 – 10:00

### BENCHMARK-STT: AN EBU OPEN-SOURCE TOOL

*The EBU and several Members have developed an open-source tool BenchmarkSTT for benchmarking Machine-Learning-based speech-to-text (STT) systems also named Automatic Speech Recognition (ASR) systems. Designed for ease of use and automation, it can be integrated into production workflows. Automatic speech-to-text algorithms can have enormous operational value where large amounts of audio-visual content are processed, such as for the creation of subtitles, to enable new accessibility services, and for the more efficient use of archives. BenchmarkSTT was designed to help choose the best implementation for a given use-case. Unlike other tools in the area, this command-line tool was designed to be used by non-specialists. It includes the normalization of texts and the computations of the metrics in one single line of code. BenchmarkSTT was developed by Flemish Institute for Archiving (VIAA), BBC, France Télévisions, the Italian RAI, Swedish Radio, the Swiss SRG and the EBU. The last release of the tool includes new functionalities like character error rate and bag of entities error rate to evaluate the performances on specific list of words depending on the context. The tool is now extended to benchmark speaker diarizations. In the context of the benchmarking, it is a requirement to publish the metrics as open-source tool to avoid any ambiguity on the metrics and test procedure. In this presentation we will explain the metrics and the usage of tools.*  
**Alexandre Rouxel (EBU), Amira Oussalah (FTV)**

10:00 – 10:20

**VSIGN: PHOTO-REALISTIC SIGN LANGUAGE VIDEO GENERATION FOR BROADCAST SIGN LANGUAGE INTERPRETATION**

*Sign language interpretation is an important aspect of broadcast that provides accessibility to Deaf communities. But the current interpretation pipeline involves an interpreter physically traveling to a studio which is expensive and, as highlighted by covid, often problematic. Avatar technology has been routinely rejected by the Deaf community, but imagine if AI could be used to reduce the cost to the broadcaster, provide more human interpretation for the Deaf and increase the ease of work and throughput of the interpreter... vSign is a photo-realistic sign language video generation system that is able to generate high-quality sign language videos. It does not replace the interpreter, so guarantees the quality of human interpretation. However, it frees the interpreter from the burden of the studio, reducing the production costs while maintaining a consistent product appearance. It also preserves the anonymity of the interpreter and provides the ability for the end user to select the appearance and demographic of the generated interpreter. The system tracks both the manual and non-manual motion of the interpreter, extracting accurate body, hand and facial features. From these, vSign generates a photo-realistic video conditioned on a new signer's appearance. The system runs in real time, allowing the anonymisation of the interpreter's appearance. We believe vSign provides multiple benefits to the broadcaster. Firstly, it removes the need for the interpreter to travel to the studio, providing considerable cost savings while allowing the broadcaster to maintain a consistent, high-quality product. Secondly, anonymisation of the interpreter's appearance to a consistent style provides a consistent end-product to the user, regardless of the interpreter. This protects the interpreter's anonymity while giving the end user more choice over what they see/consume.*

*With a demonstration.*

**Richard Bowden (University of Surrey), Robin Ribback (SWISS TXT), Necati Cihan Camgoz (University of Surrey), Ben Saunders (University of Surrey)**

10:20 – 10:40

*Coffee break***SESSION 10**

10:40 – 11:00

**USING SEMANTIC TECHNOLOGIES TO OPTIMIZE AI USAGE IN CONTENT RETRIEVAL**

*AI is becoming ubiquitous to analyze massive libraries of content and extract from text, picture and sound analysis tags to structure clips and sequences; this approach takes a lot of computing resources and takes time since the whole library needs to be reprocessed for new tag extraction.*

*Our proposition is to use semantic technology to structure the tags and articulate the knowledge of content to reduce the computing usage and accelerate the retrieval of content. We will demonstrate use cases of contextualized sports events and studio production content.*

**Cedric Lejeune (Workflowers)**

11:00 – 11:20

**LINKED OPEN DATA INFRASTRUCTURE AND APPLICATIONS FOR DIGITAL HUMANITIES IN FINLAND**

*Linked Open Data Infrastructure and Applications for Digital Humanities in Finland*

*This presentation overviews the Linked Open Data Infrastructure for Digital Humanities in Finland (LODI4DH)}. The data and services of LODI4DH enable publication and utilization of datasets for data-intensive Digital Humanities (DH) research and applications in structured, standardized formats via open interfaces. LODI4DH is based on a large national collaboration network and software created during a long line of research projects since 2003. This work has created several in-use infrastructure prototypes, such as the ONKI and Finto ontology service now maintained at the National Library of Finland, the Linked Data Finland data publishing platform LDF.fi, and the "Sampo" series of semantic portals for testing and demonstrating the usability of the infrastructure in practical applications. Thus far, the the Sampo systems have had millions of end-users on the Web suggesting a high potential of utilizing the technology and Linked Data infrastructure in DH.*

**Eero Hyvönen (Aalto University and University of Helsinki)**



11:40 – 12:00

**METADATA IN THE NEWSROOM - A PRACTICAL APPROACH**

*Adding metadata has never been on the top of mind when creating media, and as the number of applications a journalist must handle grows, at almost the same rate as the choice for content, we must find ways to ease this process. At a small broadcaster, the development resources are limited, and we constantly look at practical approaches. This presentation is covering some of the thought TV 2 are pursuing to enrich content with metadata in the Newsroom, to make the content more “findable”, for the production.*

**Kurt Mathiasen (TV 2 Denmark)**

12:00 - 13:00

*Lunch break***SESSION 11**

13:00 – 13:20

**WORD2VEC FOR TEXT SIMILARITIES**

*We've developed an API-Service which uses Word2Vec representations of online articles to create content-based recommendations for similar articles.*

**Damian Murezzan (SRF)**

13:20 – 14:00

**AUTOMATED FACT CHECKING USING DEEP NEURAL NETWORKS**

*Natural language textual data especially in the form news is generated and consumed online at massive scale. Consequently, machine learning and deep learning models to process them for various NLP tasks such as classification, linking and recommendation. In this talk I will discuss application of deep neural networks for fake news detection. Both content based and social network analysis. Then I will focus on our recent work on using deep hierarchical attention networks for fake news detection. The talk will also cover various attention mechanisms which are widely adapted in the NLP community and contrast it with the our novel attention mechanism to learn representations for various latent aspects of news such as topics, authorship etc. Contrary to existing solutions which only apply word-level self-attention, the hierarchical attention mechanism in our model jointly learns the latent aspect embeddings for classifying false claim. I will also show how we can extract and visualize the evidence from the news articles which supports or disproves the claims using the attention mechanism. Using several manually annotated high quality datasets such as Politifact, Snopes and Fever dataset we show that these learned aspect embeddings are strong predictors of false claims. We show that the attention mechanism guided by these latent aspect embeddings improve the accuracy of false claim detection by up to 13.5% in terms of Macro F1 compared to a state-of-the-art attention mechanism.*

**Vinay Setty (University of Stavanger)**

14:00 – 14:40

**WRITINGS LINGUISTIC PROPERTIES ANALYSIS TO DETECT FAKE NEWS**

*At the EBU we are developing AI models using NLP and Deep Learning to analyze the writings and assign them a reliability score. We start from the fact that Fake News publishers often have malicious intent to spread misleading information and to influence large communities. Our key assumption is that it requires a particular writing style. Moreover, human performance in detecting Fake News by analyzing the content without knowing the context and the facts is very poor, close to a random choice. The tool can be used to complement the fact checking, it can also provide inputs to journalists on the content they produce. One of the objectives of our architecture is to explain the reliability score. To do so we use a meta-learner that provides explainable decisions. A classifier generating the probability of being fake is applied for each category of features: Lexical, Grammatical, Categorized (psychological) and Embeddings (BERT). We then send these probabilities to a meta-learner which takes the final decision. The meta-learner architecture facilitates hyper-parameters tuning and explainability. We will show that our tool reaches the performances of the state of the arts on public datasets like PolityFact without targeting specifically this test case. We will make a demonstration of the tool to illustrate its usage.*

**Alexandre Rouxel (EBU), Pierre Fouché (EBU), RTBF (TBD)**

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14:40 – 15:00 *Coffee break*

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## SESSION 12

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15:00 – 15:40

### USING AI TOOLS TO SEGMENT AND DESCRIBE BROADCAST LIVESTREAM

*French National Audiovisual Institute (INA) aim is to collect, safeguard, digitize, store and promote the archives of the French television and radio. Guardian of the French audiovisual heritage, INA ensures a unique experience and expertise in structuring and enhancing its archives, in an approach focused on users and clients worldwide. INA has been testing and developing AI tools for some time, in order to face the struggling challenge of collecting, describing and analyzing thousand hundreds of TV and radio programmes every year. Tests and developments of AI toolbox are based on specific use cases.*

*The use case we will present is about automatic analysis of TV broadcast livestream, especially on news channels. These channels have a changeable programming strategy, responsive to special events, which regularly modifies their broadcast planning. Data we collect for those channels are not reliable enough. Our aim then is to use AI tools to categorize and identify the different TV programmes throughout the day, based on image recognition, face recognition, classification, text analysis, etc.*

*Our presentation is divided into 3 parts:*

- Brief overview of the tools we are using*
- How we intend to use them to extract and generate data to segment and describe TV broadcast*
- How we involve the teams to use and improve the tools, as part of change management project*

***Camille Martin, Olivio Segura (INA)***

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15:40 – 16:20

### AI4MEDIA: ENABLING AI IN THE MEDIA PRODUCTION WORKFLOWS AND BEYOND

*This speech will describe AI4Media, an H2020 project started in late 2020, whose aim is to design and deliver next generation AI Research and Training at the service of Media, Society and Democracy. The project addresses the 360 degrees of AI technology, as well as its impact on society in terms of ethics, explainability and privacy. At the core of the project, there is a tight integration among key media use cases and AI technology and tools providers, with a strong focus on cutting edge areas like new machine learning paradigms and novel content-centered algorithms. Furthermore, the project will support an equity-free funding programme for innovative research by SMEs, through the launch of open calls in 2021.*

***Alberto Messina (RAI) + TBD***

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16:20 – 16:40

## CLOSING

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