KÜNSTLICHE INTELLIGENZ

IM UND FÜR DAS FERNSEHEN

Sebastian Döring
Head of AI Platforms Services – ProSiebenSat.1 Tech Solutions
AGENDA

P7S1

AI is all around us

AI and TV-Broadcasting
WHOW WE ARE

QUICK FACTS ABOUT OUR PROSIEBENSAT.1

Merger of ProSieben & SAT.1 in 2000

European stock company SE

Headquarters in Unterföhring, Germany

More than 7,000 employees around the globe
We are Germany’s number one in the audience and TV advertising market

We built one of the world’s leading creators and distributors of entertainment content

We are the digital powerhouse with a unique investment strategy
AI IS ALL AROUND US

AI IN MOVIES GOES BACK UNTIL THE BEGINNING OF THE LAST CENTURY

„Matrix Revolutions“
2003

„Blade Runner“
1982

„Matrix Reloaded“
2003

„Blade Runner 2049“
2017

„2001 Odysee im Weltraum“ „Tron“
1968 1982

„Minority Report“
2002

„WALL-E“
2008

„Terminator: Rebellion der Maschinen“
2003

„Der 200 Jahre Mann“
1999

„WALL-E“
2008

„Ex Machina“
2014

„Terminator“
1984

„Tron Legacy“
2010

„Termintor: Gensys“
2015

„Westworld“
1973

„AI künstliche Intelligenz“
2001

„Terminator: Dark Fate“
2019

„Matrix“
1999

„Robot & Frank“
2012

„Transcendence“
2014

„Terminator Reloaded“
2003

„Her“
2013
AI IS ALL AROUND US

HUMANS OFTEN HAVE A “PRETRAINED” PICTURE IN MIND
"Artificial Intelligence is [...] to make computers do things at which, at the moment, people are better." — Elaine Rich

"A system is intelligent when it can solve problems independently and efficiently. The degree of intelligence depends on the degree of independence, the degree of complexity of the problem and the degree of efficiency of the problem-solving process." — Klaus Mainzer
AI IS ALL AROUND US

AI IS ALREADY UTILIZED ON A DAILY BASIS AND OUTSTRIPS MANKIND TO SOME EXTEND

- Driver Assistance Systems
- Style Assistant, Warehousing
- Detecting Cancer and Transcribe Patient Interviews
- Unlocking, Virtual Assistants, Gaming
AI AND TV-BROADCASTING

AI PUSHES THE DIGITIZATION AMONG DIFFERENT BUSINESS AREAS

Augment human work

Highlight Clipping  Marketing Material  Ad Placement

Recommendations  Trailer creation  Quality Checking

Compliance assurance  Editing  Subtitling

Reducing repetitive manual or very complex tasks
AI AND TV-BROADCASTING

VIDEO MINING IS MAJOR SUCCESS FACTOR

Audio Mining

Computer Vision

Video Mining

Data Mining

TOPIC-CLUSTER

EMOTION DETECTION

SPEECH TO TEXT

FACE RECOGNITION

ACTION RECOGNITION

OBJECT RECOGNITION

ProSiebenSat.1 Media SE
October 25th, 2019

Medientage 2019 - "Künstliche Intelligenz - im und für das Fernsehen"
AI AND TV-BROADCASTING

Based on this technology, P7S1 is supporting different use cases:

- Documentation
- Content Moderation
- Supporting Ad-Products
- Generating Content Insights
AI AND TV-BROADCASTING: ARCHIVING

DOCUMENTATION IS DONE ON DIFFERENT LEVELS OF THE CONTENT – GALILEO STORY “DARF MAN DAS? (AUTO)

- Topics are generated on Video-Level
- Objects are documented on Frame-Level but are aggregated on Shot-Level
- Actions are documented on Shot-Level
NEED FOR MANUAL INSPECTION CAN BE REDUCED WITH THE HELP OF A SEMI AUTOMIZED SYSTEM

UI lists content in need of inspection

System checked and rated the content regarding different risk

System gives advice regarding manual inspection

Please inspect

No inspection needed

No inspection needed
AI AND TV-BROADCASTING: SUPPORTING AD-PRODUCTS

USING AI TO CREATE ADVERTISING IMPACT AS EFFICIENTLY AND EFFECTIVELY AS POSSIBLE

Finding the right scenes...

Avoiding the wrong scenes...
INSIGHTS CAN BE USED TO ENHANCE PRODUCTIONS, RECOMMENDATIONS AND SALES FOR AD IMPRESSIONS
TV-BROADCASTERS SHOULD ALSO BE AWARE OF THE DARK SIDE

Deep Fake

Fake News

North Korean industry is critical to Pyongyang’s economy as international sanctions have already put a chill on its interaction with foreign investors who are traded in the market. Liberty Global Customs, which occasionally ships cargo to North Korea, stopped trading operations earlier this year because of pressure from the Justice Department, according to Rep. Ted Lieu (D-Calif.), chairman of the Congressional Foreign Trade Committee.

Quelle:
https://www.foreignaffairs.com/articles/2019-08-02/not-your-fathers-bots
https://www.monkeypawproductions.com
https://www.buzzfeed.com/bfmp/videos/52602
AI AND TV-BROADCASTING

WHAT DOES THE FUTURE HOLDS FOR TV-BROADCASTING

Augmentation

Post-Production

Technical Broadcasting