Keynote 05-10-17

Artificial (Media) Intelligence

Man vs. Machine in RTV-monitoring

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What's on the Menu

- 1. Historical Context of RTV Monitoring
- 2. The Last Decade
- 3. The Rise of Artificial Intelligence
- 4. Example Cases
- 5. Future Challenges



Definitions for this Talk

Cognition: the ability to see, hear, understand and learn

Artificial Intelligence: having machines performing cognitive tasks

Algorithm: a method to train machines in fulfilling a cognitive task

Machinelearning: pattern recognition in audiovisual content



Historical Context

- Inhouse Communication Departments
- Giving access to relevant information
- Coverage of part of available content
- Rise of online platforms (NPO,RTL)



"How can I get paid for watching television for all these organizations while having them satisfied in their information need?"



Monitoring Service

- Workflow
- Hyperlinking
- Summarization
- 50 Dutch RTV channels 24/7
- 400-700 summaries daily





The Last Decade: Problems and Developments

Internal

- Growing pains
- Team too big
- Content unmanageable

External

- Data Tsunami
- Human behavior
- Moore's Law



The Rise of AI

Experiments with machinelearning

- Speech-recognition
- o Face-recognition
- Object Recognition

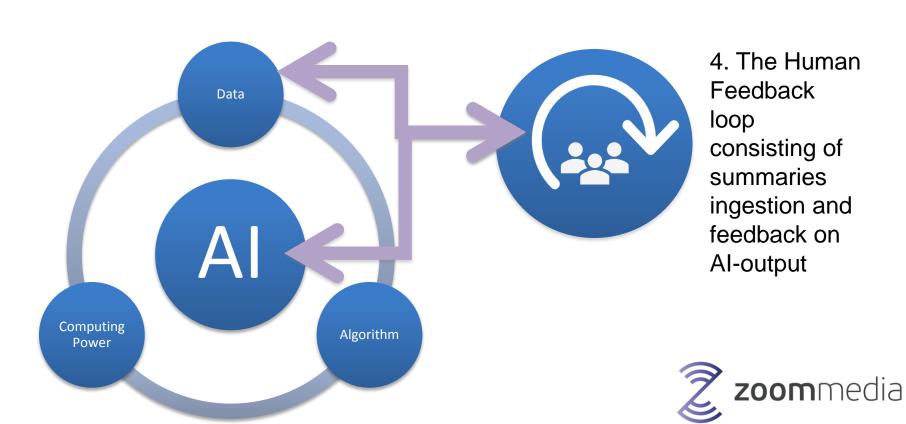
| Speech Recognition | Face Recognition | Object Recognition |
|--------------------|------------------|--------------------|

| | - p | | |
|------|-----|-----|-----|
| 2014 | 61% | 43% | 34% |
| 2015 | 64% | 55% | |
| 2016 | 82% | 57% | |
| 2017 | 94% | 91% | 71% |





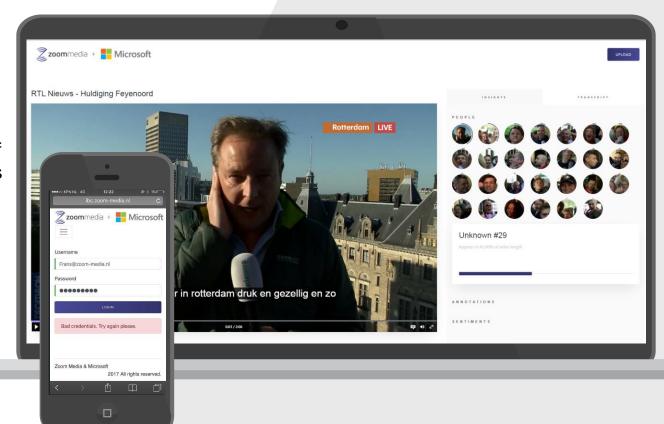
The Three (4) Pillars of AI



Zoom Media - IBC Demo

This demo gives a random UX of our service. The demo integrates Zoom Media and Microsoft technology for a specific user case. Our service is offered as a SaaS running on both MS Azure as well as our own API's.

(Click for live demo)
(Click for news coverage)



Example of ingestion: Fipronil crisis

Speech recognition understood Fipronil as "ProRail" (Dutch National Railway Company)



Future Developments

- 1. Understanding speech (NLP)
- 2. Automatic topic segmentation
- 3. Unknown "unknowns"

"Opposed to 10 years ago, RTV-monitoring will focus more on what content to filter out instead of giving access to relevant information"



Zoom Media

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