

The Relationship of Pattern Recognition Research and Public Communication

Discussion opener for «algorithms + language / language + algorithms»
IAM MediaLab, Oct 17, 2019

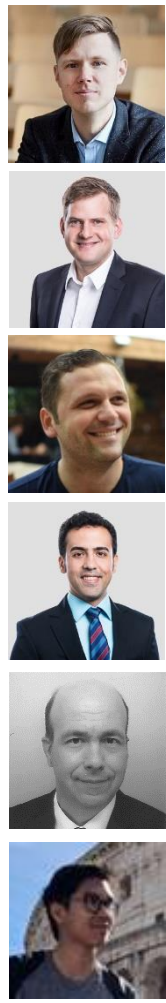
by Thilo Stadelmann



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Machine learning-based Pattern Recognition

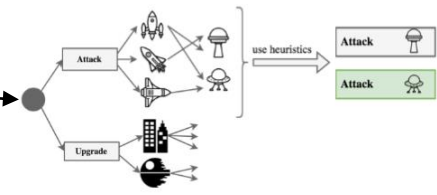
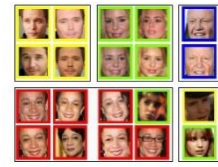
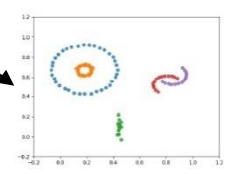
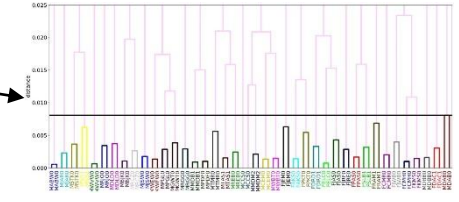
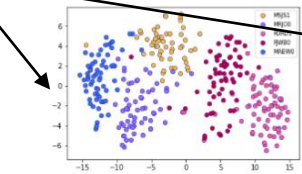
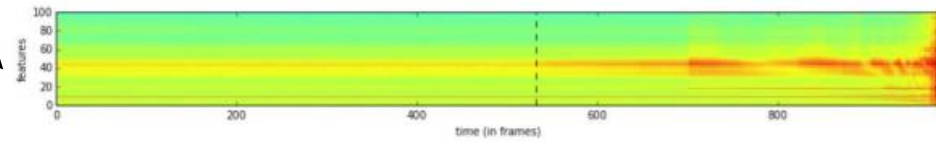
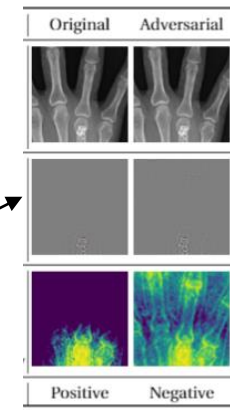


Robust Deep Learning

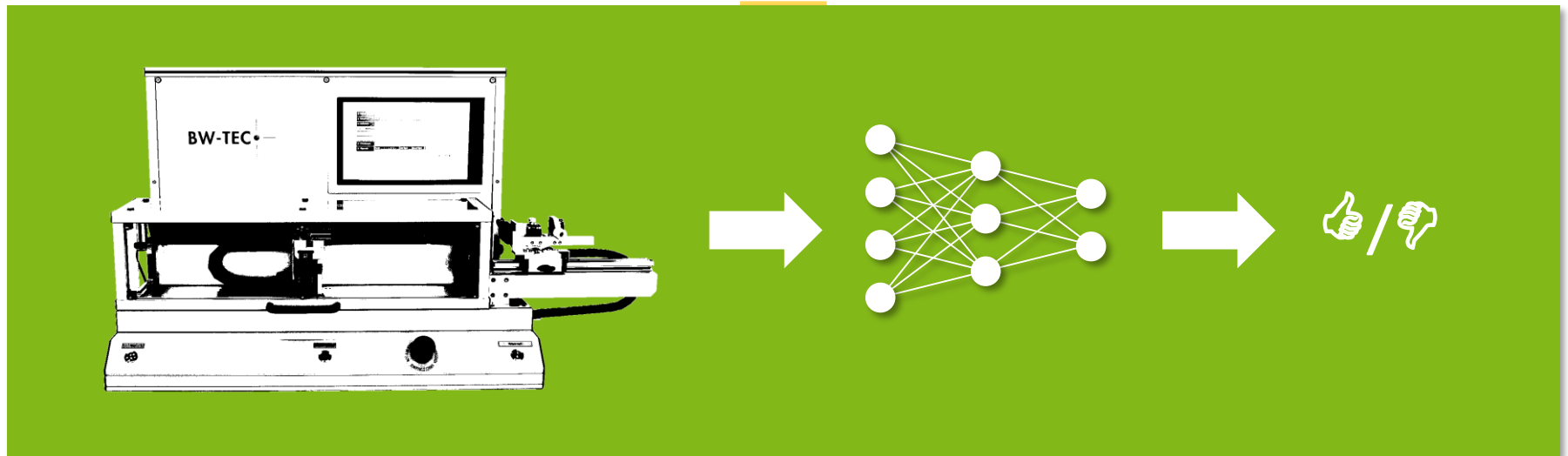
Voice Recognition

Document Analysis

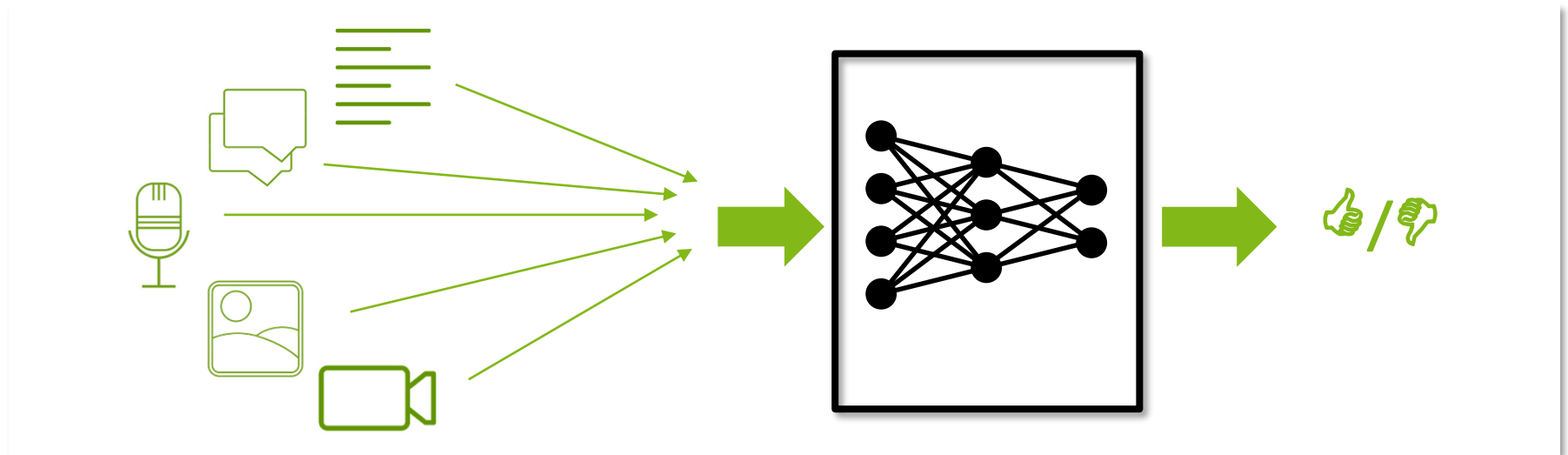
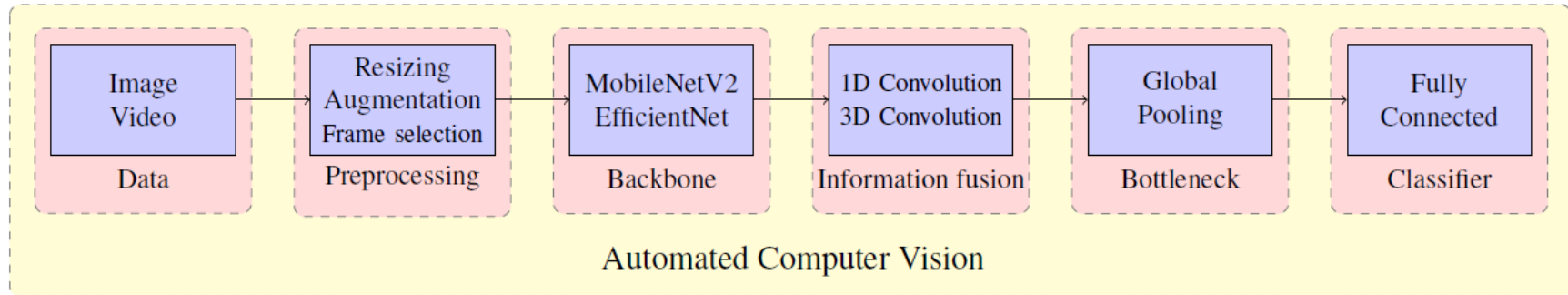
Learning to Learn & Control



Example 1: Industrial quality control



Example 2: AutoML (Auto Computer Vision 2 Challenge)



Public communication: an indirect problem in PR (at least)

Challenge: how **not** to exaggerate expectation when using terms like *intelligence*, *learning* etc. together with high-tech and the goal to “be heard”?



A more explicit problem of PR and com:

The screenshot shows a web browser window displaying the OpenAI blog post titled "Better Language Models and Their Implications". The browser's address bar shows the URL "openai.com/blog/better-language-models/". The page features a green header with the OpenAI logo and navigation links for "ABOUT", "PROGRESS", "RESOURCES", and "BLOG". The main content area has a dark background with a glowing, abstract image on the left. The article title is "Better Language Models and Their Implications", and the sub-headline reads: "We've trained a large-scale unsupervised language model which generates coherent paragraphs of text, achieves state-of-the-art performance on many language modeling benchmarks, and performs rudimentary reading comprehension, machine translation, question answering, and summarization—all without task-specific training." The date "FEBRUARY 14, 2019" and "24 MINUTE READ" are displayed below the sub-headline. At the bottom of the article, there are two buttons: "VIEW CODE" and "READ PAPER". The first paragraph of the article is visible at the bottom of the screenshot: "Our model, called GPT-2 (a successor to GPT), was trained simply to predict the next word in 40GB of Internet text. Due to our concerns about malicious applications of the technology, we are not releasing the trained model. As an experiment in responsible disclosure, we are instead releasing a much smaller model for researchers to experiment with, as well as a technical paper."

Discussion starters on the relationship of pattern recognition & communications

- **Implicit relation:** pattern recognition research creates a lot of amazing results
→ communicating them to a general public without creating **hype** is hard
- **Explicit relation:** machine-based language models recently reached production strength
→ how do **strong language models** affect communication (fake comments etc.)?



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→ Happy to answer questions & requests.

