CoB meeting
Nov. 13th 2023

Club of Bologna
Study group 3 - Ethics of the future agricultural mechanization development*⁾

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Preface

What is AI?

- „A strong statistic machine" (Francesca Hennig-Possenti at CEMA-Summit 2023)

But …

- statistical methods can be assessed scientifically!

- Is a statistical assessment possible for GenAI, too?

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Is this the future of agriculture?

Picture source: Sebastian Bosse (FhG HHI, Berlin / created with ChatGPT)

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- No!

Conclusion

- With GenAI we have reached a new level of AI

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Application of AI-Software – basic considerations in EU

- AI is a powerful tool for technology progress (e.g. in agriculture)

- Basic question: How to apply AI in ethically and socially correct way – potential issues:
  - subliminal influence
  - fragility of specific catagories of persons (disabled persons)
  - quality of input data to AI solutions determines result

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Explaining AI with horses: Computer, what do you see?

"Of course, it's a horse!"

Source: Sebastian Bosse (FhG HHI)

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Explaining AI with horses: Computer, what do you see?

"I don't know, but certainly not a horse!"

Source: Sebastian Bosse (FhG HHI)

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Why would I trust you?
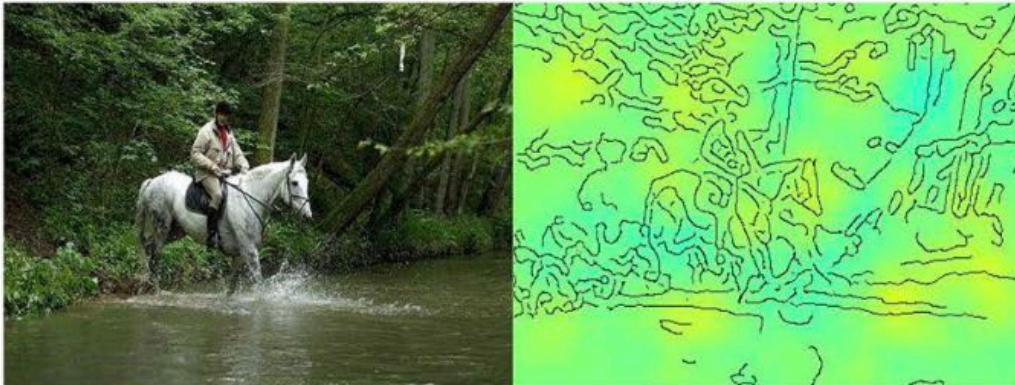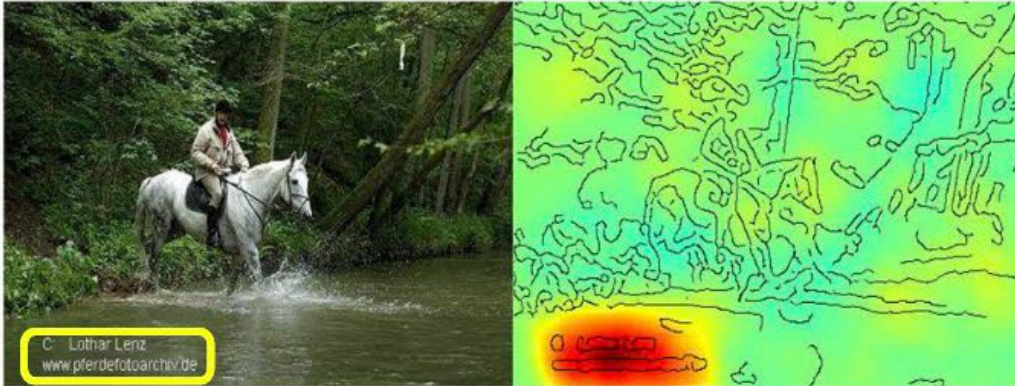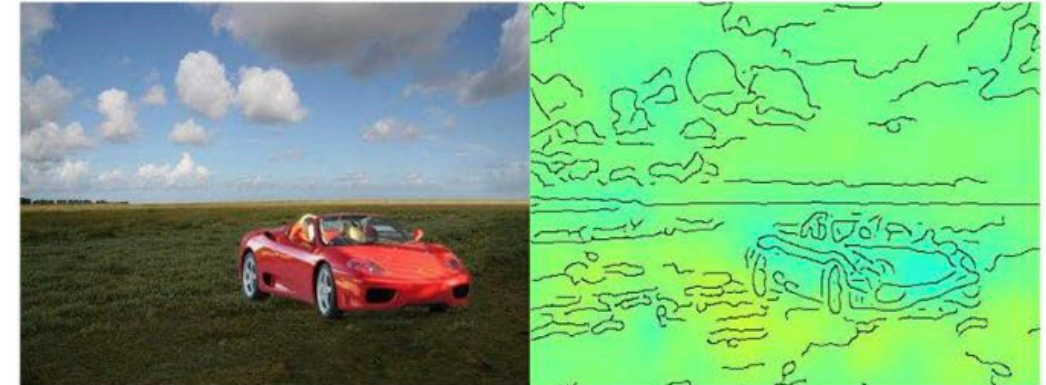
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- EU legislators tried to set frame conditions for AI so that …

  - … AI is principally applicable

  - … risk of misuse is minimized

  - … the framework for competition is set consistently

- EU legislators' approach based on risk categorization of AI applications

Source (partially): Dr. Francesca Hennig-Possenti, Chairwoman of the CEMA ad hoc group AI, Senior Legal Counsel, John Deere Gmbh & Co. KG – article to be published on ITU's web page

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EU AI Act (AIA)

USA innovates

China copies

EU regulates

The AIA …

- is globally first approach to regulate development and application of AI and thus gives an ethical and legal framework for AI

- is a part of EU's Digital Strategy

- was approved by the EU Parliament on June 14th, 2023

- will likely come into force in January 2026

- will set significant requirements on enterprises

AI is too important not to regulate and it's too important to badly regulate

European Parliament, Strasbourg, June 13th, 2023.

Closing statements by Margrethe VESTAGER, EC Executive VP in charge of Europe fit for the Digital Age, and Commissioner for Competition

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AIA risk categorization approach

Examples:

UNACCEPTABLE RISK — Threat to the safety, livelihoods and rights of people, social scoring – may not be brought into use

HIGH RISK — safety components of products, critical infrastructures (transport) - subject to strict obligations before they can be put on the market

LIMITED RISK (AI systems with specific transparency obligations) — chatbots – users need to be made aware of interacting with a machine

MINIMAL RISK — AI-enabled video games – free use

Source: https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai called on Aug. 24th 2023

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Remaining risks and issues

- Different ethical approaches in different regions of the world
  - Challenge to develop AI in a legally/ethically compliant way in different regions of the world
  - Competitive advantages through application of high / inacceptable risk AI outside of EU (equality of opportunity globally)?
- Different risks of same AI application in different environments (e.g., closed or open environments)?
- Legal obligations might become obstacle to technology progress (bureaucracy)
- Compliance check of risk levels by authorities (bureaucracy)

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EU AI Act - Global role model or obstacle?

AI has the capability to revolutionize production processes and may play a prominent role in agriculture; however, enhancing the capability of production may come at a price. Several ethical questions arise from the application of AI leading to the need of a thorough balancing of interests (Dr. Francesca Hennig-Possenti, JD, CEMA).

What is the price we are willing to pay?

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EU's Digital Strategy

•*The Data Governance Act* creates a new way of managing data to increase trust in and facilitate data sharing.

•*The Digital Markets Act* creates fair and contestable markets for innovation, growth, and competitiveness in the digital sector.

•*The Digital Services Act* creates a safer digital space where the rights of all users of digital services are protected.

•*The Data Act* regulates access to data in B2B, B2C, and B2G (business-to-government) relationships and while switching between cloud providers.

•*The AI Act* enacts stringent regulations of (high-risk) AI systems and prohibition of certain practices.

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Coming back to the preface

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- The EU Data Strategy (esp. the AIA) needs being updated

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