

Symposium on

Scaling AI Assessments

Tools, Ecosystems and Business Models

September 30th & October 1st, 2024 | Design Offices Dominion, Cologne

Program



Symposium on Scaling AI Assessments

The »Symposium on Scaling AI Assessments« brings together innovative actors in the field of AI testing, inspection, and certification (TIC), including start-ups, with the scientific community and legal experts in the field of AI. Together, we aim to advance market-ready AI assessments and audits for trustworthy AI, also with a view to clarifying the legal framework for AI.



Symposium on

Scaling AI Assessments

Tools, Ecosystems and Business Models

September 30th & October 1st, 2024 | Design Offices Dominion, Cologne

About the Project »ZERTIFIZIERTE KI«

Within the project ZERTIFIZIERTE KI, Fraunhofer IAIS is leading a consortium of interdisciplinary research partners to develop test methods for certifying artificial intelligence (AI) systems. The goal of the cooperation is to establish technical product and process testing of AI systems in the industry and to push the development of an AI certification »made in Germany«.

In order to ensure the practicality and marketability of the test methods, the partners work together with renowned institutions from research and application. Industrial needs are taken into account through the active involvement of numerous associated companies and organizations representing various industries such as telecommunications, banking, insurance, chemicals and retail. This broad participation process ensures that the procedures develop into generally accepted standards for AI systems and their verification and are simultaneously flanked by legal, ethical and philosophical considerations.

The flagship project ZERTIFIZIERTE KI is funded by the state of North Rhine-Westphalia as part of the KI.NRW competence platform.

Organization Committee



Rebekka Görge



Elena Haedecke



Fabian Malms



Maximilian Poretschkin



Anna Schmitz

Program Committee



Bertrand Braunschweig
Confiance.ai



Lucie Flek
University of Bonn,
Lamarr Institute for AI and ML



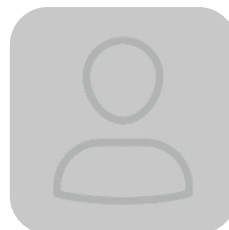
Antoine Gautier
QuantPi



Marc Hauser
TÜV AI.Lab



Manoj Kahdan
RWTH Aachen



Foutse Khomh
Polytechnique Montreal



Julia Krämer
Erasmus School of Law in Rotterdam



Qinghua Lu
CSIRO



Jakob Rehof
TU Dortmund, Lamarr Institute
for AI and ML



Franziska Weindauer
TÜV AI.Lab



Stefan Wrobel
University of Bonn, Fraunhofer IAIS



Jan Zawadzki
Certif.AI

Agenda first day

Monday, September 30th

Time	Session	Presentation & presenter	Track	Perspective
09:45 25 min	Welcome and Opening Stefan Wrobel, Fraunhofer IAIS			
10:10 70 min	Day 1 Session 1 Safeguarding and assessment methods Moderation: Lucie Flek, University of Bonn	On assessing ML model robustness: A methodological framework Afef Awadid, IRT SystemX 20 min	Academic	Testing tools
		Trustworthy Generative AI for Financial Services Marc-Andre Zöller, GFT Deutschland GmbH 15 min	Practitioner	Testing tools
		Trustworthy and market-ready AI solutions for the insurance sector Sebastian Schoenen, ControlExpert 15 min	Practitioner	Operationalization
		Panel Discussion 20 min		
11:20 20 min	Coffee Break Coffee and snacks, networking, matchmaking board			
11:20 30 min	Keynote 1	An overview of the results of Confiance.ai towards trustworthy AI systems for critical applications Bertrand Braunschweig, Scientific Coordinator of the Confiance.ai Programme		
12:10 85 min	Day 1 Session 2 Risk assessments & evaluations Moderation: Antoine Gautier, QuantPi	EAM Diagrams - A framework to systematically describe AI systems for effective AI risk assessment. Ronald Schnitzer, TUM 20 min	Academic	Operationalization
		Scaling of End-to-End Governance Risk Assessments for AI Systems. Daniel Weimer, ceel.ai 15 min	Practitioner	Operationalization
		Risk Analysis Technique for the evaluation of AI technologies and their possible impacts on distinct entities throughout the AI deployment lifecycle. Felix Zwarg, TÜV Rheinland Industrie Service GmbH 15 min	Practitioner	Operationalization
		safeAI-kit: A Software Toolbox to Evaluate AI Systems with a Focus on Uncertainty Quantification. Dominik Eisl, Industrieanlagen-Betriebsgesellschaft mbH 15 min	Practitioner	Testing tools
		Panel Discussion 20 min		
13:35 60 min	Lunch Buffet			
14:35 40 min	Day 1 Session 3 Ethics Moderation: Marc Hauer, TÜV AI Lab	Codes of Ethics in IT: do they matter? Nicholas Kluge Corrêa, University of Bonn 20 min	Academic	Testing tools
		Towards Trusted AI: A Blueprint for Ethics Assessment in Practice. Christoph Tobias Wirth, DFKI 20 min	Academic	Operationalization
15:15 30 min		AI Readiness of Standards: Bridging Traditional Norms with Modern Technologies.	Practitioner	Operationalization

Time	Session	Presentation & presenter	Track	Perspective
	Day 1 Session 4 Standards	Johannes Wellhöfer, DIN e. V. 15 min		
	Moderation: Marc Hauer, TÜV AI Lab	Leveraging AI Standards for Analyzing AI Components in Advanced Driver Assistance Systems (ADAS). Eduard Dojan & Padmanaban Dheenadhayalan, SGS-TÜV Saar GmbH 15 min	Practitioner	Operationalization
15:45 20 min	Panel Discussion Combined discussion of session 3 and session 4			
16:05 20 min	Coffee Break Coffee and snacks, networking, matchmaking board			
16:25 90 min	Legal Panel Moderation: Erik Weiss, University of Cologne	Panel Discussion with Legal Experts <ul style="list-style-type: none"> • Andreas Engel • Dimitrios Linardatos • Mark Cole 	Legal	
17:55 15 min	Short Wrap Up and Closing			
18:10 60 min	Commuting to restaurant			
19:00	Get-Together (optional) Dinner at local brewery restaurant "Brauhaus Früh am Dom" (self-paid event).			

Please note that this is a snapshot of the agenda that may be updated slightly prior to the event. Latest updates will be published on the website: <https://www.zertifizierte-ki.de/symposium-on-scaling-ai-assessments/>

Keynote 1

An Overview of the Results of Confiance.ai Towards Trustworthy AI Systems for Critical Applications



Bertrand Braunschweig
Scientific Coordinator of the Confiance.ai Program

Abstract

I will present the results obtained by the program after four years of joint work by our group of major industrials, academics and research institutions. I will show some practical results (software tools, environments), our major scientific results addressing several factors of trustworthy AI, and our vision for the future including the challenges ahead. Our results can and will contribute to AI trustworthiness improvement and assessment, in support of some key requirements of the AI act.

Bio

Bertrand Braunschweig began his career in the oil industry as a researcher in systems dynamics and artificial intelligence. He then joined IFP Énergies Nouvelles to manage AI research and coordinate international interoperability standards projects. He spent five years at the ANR as head of the ICST department, before joining Inria in 2011 as director of the Rennes research center, then of the Saclay research center, and then to steer the research component of the national AI strategy. He is now an independent consultant and provides support to various organizations, notably as scientific coordinator of the Confiance.ai program operated by IRT SystemX.

Bertrand Braunschweig is an ENSIE engineer, PhD from Paris Dauphine University and Habilitation from Pierre and Marie Curie University.

Legal Panel

Panel Discussion with Legal Experts

- What requirements are imposed by the AI Act on generative AI and how can compliance be ensured? Drawing from a specific case study, what distinct challenges do high-risk AI systems pose and how does the AI Act address them? How does the AI Act intertwine with other complementary legislative frameworks such as the GDPR?
- These questions will be subject to a series of presentations given by selected legal experts followed by a discussion.



Dr. Andreas Engel

Abstract

Regulation of Generative AI by the AI Act]: The AI Act contains specific rules for generative AI and foundation models, in addition to the general risk-based approach: Obligations regarding documentation and information for providers of general purpose AI models, additional obligations regarding systemic risk, and transparency obligations for AI-generated content. This presentation briefly introduces these obligations and discusses the various mechanisms in the AI Act to promote compliance and to make the AI Act future-proof by maintaining flexibility.

Bio

Andreas Engel researches the challenges of digitalization, primarily from a private law perspective. He is a co-editor of the Oxford Handbook of the Foundations and Regulation of Generative AI (forthcoming). He is a senior research fellow at University of Heidelberg. He studied in Munich, Oxford and at the Yale School and wrote his doctoral thesis at the Max Planck Institute for Comparative and International Private Law in Hamburg.



Prof. Dr. Dimitrios Linardatos

Abstract

His talk will explore the regulatory framework for high-risk AI systems in the AI Act, analyzing its provisions, criteria for classifying high-risk AI, and the implications. It will cover the main legal, technical, and ethical standards, along with specific requirements and compliance obligations for developers and operators of high-risk AI.

Bio

Prof. Dr. Dimitrios Linardatos holds the Chair of Civil Law, Digitalization Law, and Business Law at Saarland University. His research focuses on digital economy topics, especially liability law.



Prof. Dr. Mark Cole

Abstract

His talk will put the AI Act into context in a twofold manner: firstly, it will show its place in and interconnection with an already complex regulatory framework for the digital and online environment in the EU. This will include questions of obligations as well as oversight and monitoring. Secondly, in a brief look beyond the EU its potential and approach compared, for example, with the Council of Europe's Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law.

Bio

Professor Dr iur. Mark D. Cole is Professor of Media and Telecommunications Law at the University of Luxembourg (since 2007) and Director for Academic Affairs of the Institute for European Media Law (EMR) in Saarbrücken (since 2014). He specializes in European and comparative media law across the entire spectrum from the legal framework for traditional media to regulatory issues for the internet, data protection and copyright law and is co-editor of AIRe – Journal of AI Regulation and Law.

Location GetTogether

Brauhaus Früh am Dom

Am Hof 12-18

50667 Köln

www.frueh-am-dom.de

Agenda second day

Tuesday, October 1st

Time	Session	Presentation & presenter	Track	Perspective
09:00 15 min	Welcome and Opening			
09:15 90 min	Day 2 Session 1 Governance and regulations Moderation: Julia Krämer, Erasmus University Rotterdam	Invited Talk Data Governance for a Trustworthy AI Sigrun Schnurbusch-Grund, Bitmarck 20 min		
		Introducing an AI Governance Framework in Financial Organizations. Best Practices in Implementing the EU AI Act. Sergio Genovesi, SKAD AG 15 min	Practitioner	Operationalization
		Efficient Implementation of an AI Management System Based on ISO 42001. Nikolaus Pinger, TrailML 15 min	Practitioner	Operationalization
		Evaluating Dimensions of AI Transparency: A Comparative Study of Standards, Guidelines, and the EU AI Act Sergio Genovesi, SKAD AG 20 min	Academic	Operationalization
		Panel Discussion 20 min		
10:45 25 min	Coffee Break Coffee and snacks, networking, matchmaking board			
11:10 70 min	Day 2 Session 2 Transparency + XAI Moderation: Elena Haedecke, Fraunhofer IAIS	Transparency of AI systems. Veronika Lazar, Bundesamt für Sicherheit in der Informationstechnik 15 min	Practitioner	Operationalization
		Tensor Networks – from quantum systems to trustworthy and assessable AI. Timo Felser, Tensor Solutions 15 min	Practitioner	Testing tools
		A View on Vulnerabilites: The Security Challenges of XAI. Fabian Langer, TÜV Informationstechnik GmbH 20 min	Academic	Testing tools
		Panel Discussion 20 min		
12:20 70 min	Lunch Buffet			
13:30 30 min	Keynote 2 (virtual)	Lessons Learned from Assessing Trustworthy AI in Practice Roberto Zicari, Z-Inspection® Initiative Lead		
14:00 20 min	Invited Talk	MISSION KI – Development of a voluntary AI Quality and testing standard Carolin Anderson, acatech 20 min		
14:20 30 min	Coffee Break Coffee and snacks, networking, matchmaking board			
14:50 70 min	Day 2 Session 3 Certification	AI Certification: Empirical Investigations into Possible Cul-de-sacs and Ways Forward. Benjamin Fresz, Fraunhofer IPA & IFF, University of Stuttgart 15 min	Practitioner	Testing tools

Time	Session	Presentation & presenter	Track	Perspective
	Moderation: Manoj Kahdan, Digital Responsibility Lab -RWTH Aachen University	AI certification: an accreditation perspective. Susanne Kuch, Deutsche Akkreditierungsstelle (DakkS) 15 min	Practitioner	Operationalization
		AI Assessment in Practice: Implementing a Certification Scheme for AI Trustworthiness. Carmen Mei-Ling Frischknecht-Gruber, ZHAW Zurich University of Applied Sciences 20 min	Academic	Testing tools
		Panel Discussion 20 min		
16:00 15min	Short Wrap Up and Closing			

Please note that this is a snapshot of the agenda that may be updated slightly prior to the event. Latest updates will be published on the website: <https://www.zertifizierte-ki.de/symposium-on-scaling-ai-assessments/>

Keynote 2

Lessons Learned from Assessing Trustworthy AI in Practice



Prof. Roberto V. Zicari
Z-Inspection® Initiative Lead.

Abstract

Building artificial intelligence (AI) systems that adhere to ethical standards is a complex problem. Even though a multitude of guidelines for the design and development of such trustworthy AI systems exist, these guidelines focus on high-level and abstract requirements for AI systems, and it is often very difficult to assess if a specific system fulfills these requirements.

The Z-Inspection® process provides a holistic and dynamic framework to evaluate the trustworthiness of specific AI systems at different stages of the AI lifecycle, including intended use, design, and development. It focuses, in particular, on the discussion and identification of ethical issues and tensions through the analysis of socio-technical scenarios and a requirement-based framework for ethical and trustworthy AI.

This talk is a methodological reflection on the Z-Inspection® process. I will illustrate how high-level guidelines for ethical and trustworthy AI can be applied in practice and provide insights for both AI researchers and AI practitioners. I will share the lessons learned from conducting a series of independent assessments to evaluate the trustworthiness of real-world AI systems, as well as key recommendations and practical suggestions on how to ensure a rigorous trustworthiness assessment throughout the lifecycle of an AI system.

Bio

Roberto V. Zicari is an affiliated professor at the Yrkeshögskolan Arcada, Helsinki, Finland, and an adjunct professor at the Seoul National University, South Korea. Roberto V. Zicari is leading a team of international experts who defined an assessment process for Trustworthy AI, called Z-Inspection®. Previously he was professor of Database and Information Systems (DBIS) at the Goethe University Frankfurt, Germany, where he founded the Frankfurt Big Data Lab.

He is an internationally recognized expert in the field of Databases and Big Data. His interests also expand to Ethics and AI, Innovation and Entrepreneurship. He is the editor of the ODBMS.org web portal and of the ODBMS Industry Watch Blog. He was for several years a visiting professor with the Center for Entrepreneurship and Technology within the Department of Industrial Engineering and Operations Research at UC Berkeley (USA).

More information about the project »ZERTIFIZIERTE KI«

You want to know more about die project »ZERTIFIZIERTE KI«?

Please feel free to contact us: zki-symposium@iais.fraunhofer.de

Or visit the project website: www.zertifizierte-ki.de (in German)



