

Wendt / Wendt

New Artificial Intelligence Act

A Practitioner's Guide



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edited by

Janine Wendt
Domenik H. Wendt

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Foreword

The Artificial Intelligence Act (AI Act) establishes the first legal framework for the development, placing on the market, and use of artificial intelligence (AI) in the European Union (EU). The EU regulation is the world's first comprehensive set of rules that attempts to keep the application of AI within the bounds of product safety law while also safeguarding fundamental rights.

The basic idea behind the AI Act is a horizontal regulatory approach. This is accompanied by a risk-based differentiation of the intensity of intervention by AI systems. This risk-based differentiation is fundamentally technology-neutral and based on the area of application of an AI system. Depending on the risk profile of the application scenario, a four-tier regulatory framework applies, distinguishing between unacceptable risk, high risk, transparency risk, and minimal risk. The AI Act standardizes numerous compliance requirements, particularly for providers and deployers of so-called high-risk AI systems. It also sets standards for general-purpose AI (GPAI).

The AI Act also forms the basis for a new supervisory regime that relies on cooperation between authorities at EU level and in the EU Member States. The EU Commission, with its affiliated AI Office, is taking control of GPAI and formulating guidelines for certain aspects of the AI Act. Other supervisory activities will be carried out by national authorities.

The AI Act is supplemented by harmonized standards. These are intended to help implement the compliance requirements in AI systems. These standards are currently being developed by the CEN-CENELEC Joint Technical Committee 21 (JTC 21) Artificial Intelligence at EU level.

Since the AI Act came into force on 1.8.2024, the new law on artificial intelligence in the EU has developed dynamically. The legal framework for AI systems and AI models Act has taken shape. The EU Commission's guidelines on AI systems and prohibited practices, which have been published in the meantime, specify the requirements of the AI Act. A living repository is intended to provide guidance on the implementation of measures to ensure the necessary AI competence. The provisions of the AI Act on GPAI models are accompanied by the AI Office's first practical guide (Code of Practice for General-Purpose AI Models). The EU Commission has also developed further guidelines for providers of these models. Additional provisions on the new supervisory system have been created via a new delegated act. Case law is also increasingly dealing with AI systems and AI models and the regulatory requirements to be observed in this regard.

This handbook is intended to provide clear and quick access to the complex new regulatory system. We have therefore endeavored to break down the sometimes complex requirements into a readable format. The primary goal is to provide a basic understanding of the new regulatory framework. This book does not aim to provide a detailed examination of the individual requirements of the AI Act.

The subject matter regulated by the AI Act, AI, is also not yet an everyday topic. For this reason, the technological basics are discussed at the beginning of this book to the extent that they are necessary for understanding the requirements of the AI Act.

In addition to the provisions of the AI Act, this handbook also outlines the basic aspects of copyright and liability law that must be observed when using AI systems and models.

In order to facilitate access to the relevant legal requirements, we have reproduced the AI Act, together with explanatory notes and appendices, in the book in consultation with the publisher. In addition, we have compiled a list of sources with links to

Foreword

the individual texts in the chapter ‘Overview: Legal sources, administrative practice, and standards’. The overview also includes a list of standards published to date by the CEN-CENELEC Joint Technical Committee 21 (JTC 21) Artificial Intelligence.

We would like to thank Beck/Hard/Nomos, in particular Dr. Marco Ganzhorn, whose tireless efforts were a major motivation for this book.

This is the first edition of the handbook. We have compiled it with the greatest possible care. Should you notice any errors while reading, we would be grateful for any helpful comments.

Janine and Domenik Wendt, August 2025

CONTENTS

Foreword	V
Abbreviations	IX
§ 1 Introduction	1
§ 2 AI – Attempts at a definition	9
§ 3 AI Act	22
§ 4 AI literacy	39
§ 5 Risk levels	43
§ 6 Requirements for high-risk AI systems	56
§ 7 Obligations for high-risk AI systems	66
§ 8 Notification	85
§ 9 Harmonized standards and conformity assessment	89
§ 10 Transparency obligations for providers and deployers	98
§ 11 General purpose AI – GPAI	104
§ 12 Measures in support of innovation	122
§ 13 Supervisory system	127
§ 14 Codes of conduct	144
§ 15 Liability	145
Annex: Artificial Intelligence Act	153
Recitals	153
Text of the Regulation	216
Annexes	313
Overview: Legal Sources, Administrative Practice, Standards	331
Index	335

§ 1 Introduction

Literature: *Altenburg, Nadia/Scherr, Julius*, Artificial intelligence in law in 2024 – Quo vadis? LTZ 2024, 34; *Ammann, Thorsten/Pohle, Jan*, KI-Verordnung – Was bisher geschah und jetzt zu tun ist, CB 5/2024, 137; *Antweiler, Dario/Beckh, Katharina/Chakraborty, Nilesh/Giesselbach, Sven/Klug, Katrin/Rüping, Stefan*, Natural Language Processing in der Medizin, Whitepaper Fraunhofer IAIS, April 2023; *Asenger, Hüveyda*, Künstliche Intelligenz im Strafverfahren und Fairness, InTeR 3/2023, 134; *Ashkar, Daniel/Schröder, Christian*, Das Gesetz über künstliche Intelligenz der Europäischen Union (KI-Verordnung), BB 2024, 771; *Bachgrund, Richard/Nesum, Long/Bernstein, Max/Burchard, Christoph* – Das Pro und Contra für Chatbots in Rechtspraxis und Rechtsdogmatik, CR 2/2023, 132; *Batista, Patricia*, ChatGPT versus Arbeitsrecht – Leistungserbringung mithilfe von Sprachmodellen, LTZ 2024, 118; *Baumgartner, Ulrich/Brunnbauer, Jonas H./Cross, Samuel*, Anforderungen der DS-GVO an den Einsatz von Künstlicher Intelligenz, MMR 2023, 543; *Becker, Daniel/Feuerstack, Daniel*: Der neue Entwurf des EU-Parlaments für eine KI-Verordnung, MMR 2024, 22; *Berz, Amelie/Engel, Andreas/Hacker, Philipp*: Generative KI, Datenschutz, Hassrede und Desinformation – Zur Regulierung von KI-Meinungen, ZUM 2023, 586; *Biermann, Friedrich G.*, Wissenszurechnung und Künstliche Intelligenz, 2022; *Binder, Nadja/Egli, Catherine*, Umgang mit Hochrisiko-KI-Systemen in der KI-VO, MMR 2024, 626; *Birska, Sylwia/Röver, Timo*: Künstliche Intelligenz in der Prävention, ARP 2024, 21; *Blasek, Katrin*: KI-Regulierung in der Volksrepublik China, RD 2023, 557; *Bomhard, David/Siglmüller, Jonas*, AI Act – das Trilogergebnis, RD 2024, 45; *Bomhard, David/Siglmüller, Jonas*, Europäische KI-Haftungsrichtlinie, RD 2022, 506; *Borges, Georg*, Liability for AI Systems Under Current and Future Law, CRI 1/2023, 1; *Borges, Georg*, Der Begriff des KI-Systems. Tatbestandsmerkmale und Auslegungsansätze, CR 11/2023, 706; *Botta, Jonas*, (K)ein Recht auf Behandlung mit KI? – Access to intelligent medical devices, ZfPC 2024, 42; *Botta, Jonas*, Die Förderung innovativer KI-Systeme in der EU, ZfDR 2022, 391; *Brollo, Fernanda/Dabla-Norris, Era/de Mooij, Ruud/Garcia-Macia, Daniel/Hanappi, Tibor/Liu, Li/Nguyen, Anh. D. M.*, Broadening the Gains from Generative AI: The Role of Fiscal Policies, IMF study of 17.6.2024, SDNEA2024002; *Buchalik, Barbara/Gehrmann, Mareike Christine*, From zeros and ones to paragraphs: Der AI Act, ein Rechtscode für Künstliche Intelligenz, CR 3/2024, 145; *Burchardi, Sophie*, Risikotragung für KI-Systeme EuZW 2022, 685; *Busche, Daniel*, Einführung in die Rechtsfragen der künstlichen Intelligenz, JA 2023, 441; *Buxmann, Peter/Schmidt, Holger*, Grundlagen der Künstlichen Intelligenz und des Maschinellen Lernens, in Buxmann, Peter/Schmidt, Holger (eds.), Künstliche Intelligenz, 2019; *Chiban-guza, Kuuya/Stege, Hans*, Die KI-Verordnung – Überblick über den neuen Rechtsrahmen, NJW 2024, 1769; *Conrads, Markus/Schweitzer, Sascha*: Einsatz Künstlicher Intelligenz im Vertrags-, Wirtschafts- und Arbeitsrecht, NJW 2023, 2809; *Dix, Alexander/Seyerlein-Klug, Annegrit*, EAID: Exportschlagler AI Act – Setzt die EU einen weltweiten Standard für die KI-Regulierung? ZD-Aktuell 2024, 04506; *Ebert, Andreas/Busch, Philip/Spiecker gen. Döhmann, Indra/Wendt, Janine*, Roboter im Supermarkt, ZfPC 2023, 16; *Ensthaler, Jürgen*, Zum neuen Verhältnis zwischen Rechtswissenschaft und Technik, ZRP 2022, 55; *Ensthaler, Jürgen*, Künstliche Intelligenz (KI) – einige Gedanken zu den vorhandenen und geplanten Schutzmaßnahmen, InTeR 1/24, 2; *Feuerstack, Daniel/Becker, Daniel/Hertz, Nora*, Die Entwürfe des EU-Parlaments und der EU-Kommission für eine KI-Verordnung im Vergleich, ZfDR 2023, 421; *Frost, Yannick/Steiniger, Manuela/Vivekens, Sabrina*, Take the risk or lose the chance? Essential questions that companies should consider from a legal perspective in the field of AI, MPR 2024, 4; *Gaub, Daniela/Kadler, Mathias*, Die Beeinflussung von menschlichem Verhalten durch Künstliche Intelligenz – Chance oder Gefahr? Rethinking Law 6.2022, 4; *Gengler, Eva*, Feministische Künstliche Intelligenz, Rethinking Law 6.2022, 32; *Gumpp, Tobias/Schneider, Marc Pierre*, Methoden der Künstlichen Intelligenz in der Rechtswissenschaft, ZfDR 2021, 155; *Haar, Tobias*, KI-Regulierung: Gelingt die Quadratur des Kreises? MMR 2023, 397; *Hacker, Philipp*: The regulation of ChatGPT et al. – ein europäisches Trauerspiel, GRUR 2023, 289; *Hacker, Philipp/Berz, Amelie*, Der AI Act der Europäischen Union – Überblick, Kritik und Ausblick, ZRP 2023, 226; *Hahn, Johanna*, Die Regulierung biometrischer Fernidentifizierung in der Strafverfolgung im KI-Verordnungsentwurf der EU-Kommission, ZfDR 2023, 142; *Hoeren, Thomas/Pinelli, Stefan*, Künstliche Intelligenz – Ethik und Recht, 2022; *Kerkmann, Christof/Scheuer, Stephan*, Das Microsoft-Prinzip, Handelsblatt vom 14./15./16.7.2023, 42; *Krüger, Daniel/Wagner, Susan*, Das Phänomen “Künstliche Intelligenz” aus regulatorischer und haftungsrechtlicher Sicht, ZfPC 2023, 124; *Kühling, Jürgen*, Der Einsatz von Künstlicher Intelligenz durch Unternehmen und Aufsichtsbehörden bei der Bekämpfung von Hassrede, ZUM 2023, 566; *Kumkar, Lea Katharina/Rapp, Julian Philipp*, Deepfakes, ZfDR 2022, 199; *Martini, Mario*, Blackbox-Algorithmus, 2019; *Martini, Mario/Wiesehöfer, Christine*, Auf dem Weg zur Regulierung von General-Purpose-AI – eine erste Bestandsaufnahme und Kritik der Regelungsentwürfe, NVwZ 1/2024, 1; *Meckel, Miriam/Steinacker, Léa*, Alles überall auf einmal, 2024; *Möller-Klapperich, Julia*, ChatGPT und Co. – aus der Perspektive der Rechtswissenschaft, NJ 2023, 144; *Prange, Hans Michael*, Datenschutz- und lauterkeitsrechtliche Kernfragen des Einsatzes Künstlicher

§ 1 Introduction

Intelligenz im Marketing, WRP 2024, 151; *Roth-Isigkeit, David*, Der risikobasierte Ansatz als Paradigma des Digitalverwaltungsrechts, MMR 2024, 621; *Russell, Stuart/Norvig, Peter*, Artificial Intelligence, 4th ed. 2021; *Schmid, Thomas/Hildesheim, Wolfgang/Holoyad, Taras*, Künstliche Intelligenz managen und verstehen, 2023; *Schwartzmann, Rolf/Keber, Tobias/Zenner, Kai*, KI-Verordnung. Leitfaden für die Praxis, 2024; *Schürmann, Kathrin*, Datenschutz-Folgenabschätzung beim Einsatz Künstlicher Intelligenz, ZD 2022, 316; *Wendt, Domenik/Jung, Constantin*, Europäischer Rechtsrahmen für Künstliche Intelligenz (Teil I), LRZ 2021, 34; *Wendt, Janine/Wendt, Domenik*, Einigung auf Rechtsrahmen für Künstliche Intelligenz in der EU, ZfPC 2024, 86.

I. AI as a universal technology to be regulated	1
II. Accelerating change through generative AI	11
III. Developments in and around OpenAI	14
IV. Artificial General Intelligence (AGI)	19
V. Danger of disinformation	23

I. AI as a universal technology to be regulated

- 1 In recent years, AI has developed into a **universal technology**.¹ It has begun to slowly but irreversibly change our everyday and economic lives. The change is being driven by the promise of **increased productivity and efficiency** as well as cost reductions.
- 2 In fact, we are already encountering AI applications in many areas that deliver on this promise and improve our lives. The most striking upheavals are in key areas such as medicine.² Here, AI is making it possible to increase the accuracy of **predictions**³ and thus make better decisions.⁴ For example, an AI called Path-BigBird can process pathology reports and provide accurate information about a cancer in almost real time.⁵ It is clear that these and similar AI applications rapidly accelerate **medical progress**.⁶
- 3 But we are also increasingly encountering AI applications in everyday life. Apple's **integration** of generative AI into devices such as smartphones, for example, is likely to lead to a rapid and comprehensive impact of AI on daily routines in private and professional environments. The integration of generative AI into Office solutions offered by Microsoft also promises fascinating progress. Further investment in data, skills and digitized workflows is still required to unlock the full potential of AI. Currently, 37 % of German companies surveyed in a study by the IW future panel state that they use AI. This usage rate is high compared to previous studies. The OECD recorded a rate of use of only 13.3 % in Germany in 2024. For Europe the EU Commission has identified a rate of just under 20 % in 2024. Compared to AI pioneers such as China, where 50 % of companies were already using AI in 2023, the share is still low.⁷ However, AI is al-

¹ Roth-Isigkeit MMR 2024, 621 (621).

² Antweiler/Beckh/Chakraborty/Giesselbach/Klug/Rüping, Natural Language Processing in der Medizin, Whitepaper Fraunhofer IAIS 2023, https://newsletter.fraunhofer.de/public/a_14338_S4Jd/z/file/data/4410_Fraunhofer_IAIS_Whitepaper_Clinical_NLP_Web.pdf.

³ AI systems are already outperforming humans in the analysis of medical images, see Botta ZfPC 2024, 42 (42).

⁴ See also the examples in Schürmann ZD 2022, 316 (317) and Botta ZfDR 2022, 391 (394).

⁵ Chandrashekar/Lyngaas/Hanson/Gounley/Gao/Wu, JCO Clinical Cancer Informatics, <https://doi.org/10.1200/CCI.23.00148>.

⁶ Frost/Steininger/Vivekens MPR 2024, 4 (6).

⁷ See IW Future Panel: https://www.iwkoeln.de/fileadmin/user_upload/Studien/Report/PDF/2025/IW-Report_2025-KI-als-Wettbewerbsfaktor.pdf?utm_source=chatgpt.com as well as ifo Business Survey: <https://www.ifo.de/fakten/2025-06-16/unternehmen-setzen-immer-staerker-auf-kuenstliche-intelligenz>.

§ 1 Introduction

ready being used successfully in many companies today. Even a simple AI assistant such as Klarna Bank AB's chatbot conducts around 2.3 million customer conversations in a month. This is equivalent to the work of 700 full-time employees.⁸ Thanks to the accuracy of the AI's responses, the number of repeated requests is said to have fallen by 25 %. An average conversation now only takes just under two minutes – compared to eleven minutes previously required by a human employee. The chatbot is also available around the clock in more than 35 languages.

What these successful AI applications also have in common is that they are all still in the early stages of development. They have the **potential** to overcome global challenges and increase **innovation** and growth.⁹

At the same time, the rise of AI is triggering **fears**.¹⁰ How will AI affect the labor market? Will large sections of the working population lose their jobs?¹¹ Studies show: The greater the knowledge about AI, the greater the perceived threat.¹² A quote from Jensen Huang, CEO of Nvidia, fits in with this: “AI won't take your job. But, if you are not using AI, you are going to lose your job to somebody who uses AI”.¹³ This raises the question: How can we steer the development of AI in the right direction? How do we deal with the **risks**, undesirable side effects and **ethical dilemmas** – in everyday life, but also in business? How do we deal with self-driving cars, virtual medical assistants or **fake news**?¹⁴

The first AI Safety Report was published on 29.1.2025.¹⁵ “With all the noise surrounding AI, this report aims to provide policymakers with an evidence-based, balanced overview of the risks of AI and how to mitigate them,”¹⁶ explained AI pioneer Yoshua Bengio, under whose leadership the nearly 300-page report was produced.¹⁷ The Safety Report focuses on AI systems that can perform a wide range of tasks, so-called “general-purpose AI” (GPAI) (→ § 11 mn. 1). It impressively demonstrates how quickly this technology has developed. For example, the best models in scientific reasoning tests have leaped from “random guessing” to “PhD-level experts” in the space of 18 months.¹⁸

As its capabilities grow, so do the potential risks, including “large-scale impacts on the labor market, AI-based hacker attacks or biological attacks” and even “a loss of control of general-purpose AI by society”. The report also lists further challenges, including copyright issues, damage caused by fraud, privacy violations, distorted results and general reliability issues.¹⁹ The focus is therefore on the question of the trustworthiness of AI systems.

⁸ See also Batista LTZ 2024, 118 (118).

⁹ Botta ZfDR 2022, 391 (392 et seq.).

¹⁰ See only DIE ZEIT 14.3.2024, 12.

¹¹ Broлло/Dabla-Norris/deMooij/Garcia-Macia/Hanappi/Liu/Nguyen, Broadening the Gains from Generative AI: The Role of Fiscal Policies, IMF study of 17.6.2024.

¹² Buxmann FAZ 18.8.2025.

¹³ Huang, Milken Institute Global Conference 2025 of 6.5.2025.

¹⁴ Gaub/Kadler Rethinking Law 6.2022, 4 (5).

¹⁵ International AI Safety Report – The International Scientific Report on the Safety of Advanced AI, 2025, <https://www.gov.uk/government/publications/international-ai-safety-report-2025/international-ai-safety-report-2025>.

¹⁶ See <https://yoshuabengio.org/2024/07/09/reasoning-through-arguments-against-taking-ai-safety-seriously/>.

¹⁷ <https://arxiv.org/pdf/2501.17805>.

¹⁸ International AI Safety Report – The International Scientific Report on the Safety of Advanced AI, 2025, p. 42.

¹⁹ Bachgrund/Nesum/Bernstein/Burchard CR 2/2023, 132 (135).

§ 1 Introduction

- 8 It is about the risk of **reinforcing** existing unconscious **prejudices**, for example in relation to gender or ethnic origin,²⁰ the violation of human rights or values such as the **protection of privacy**. There is also growing concern that AI systems will reinforce inequalities, **market concentrations** and digital divides.
- 9 In order to get the right answers to these questions, we need to take a close look at the opportunities and risks associated with the use of AI. **International cooperation** and joint solutions **are** needed to steer the development and use of AI in a way that benefits us all. Ultimately, it is the **responsibility of the legislature** to formulate clear boundaries and requirements to enable the use of human-centered, **trustworthy AI**.
- 10 The fact that the European Union (EU) is leading the way here with the Artificial Intelligence Act (AI Act) is courageous. With the AI Act, the EU has launched the world's **first comprehensive regulatory system for AI**.²¹ In doing so, it is daring to introduce groundbreaking legislation that will have an impact on the global AI landscape and, in the best-case scenario, lead to a "**Brussels Effect**".²² Despite the criticism of individual regulations, this drive deserves respect. Well-balanced rules will be needed at the latest when AI enters the mainstream of society. The AI Act, the first provisions of which have been in force since February 2025, was well timed for this moment.

II. Accelerating change through generative AI

- 11 With ChatGPT, the age of generative AI dawned at the end of 2022. Unlike regular machine learning, generative AI is not only able to independently find patterns in large data sets, but also to create new content such as texts, images, code, and more based on the identified relationships. This meant that dialog formats were now possible; the time had come when humans could talk to machines.²³ ChatGPT allowed AI to arrive in the middle of society. OpenAI published an early demo of the chatbot on 30.11.2022, which spread rapidly on social media due to its many possible applications. As an AI system, **ChatGPT** was based on the GPT-3 AI model, which had been developed two and a half years earlier. But it was the release of ChatGPT that marked the **decisive moment**, when it became clear to the general public just how influential this technology could become.²⁴ Just as the iPhone made the revolution of mobile access to information and services possible with its launch on 29.6.2007, the turn of the year 2022/2023 marks the turning point of AI.²⁵ Generative applications, for which ChatGPT has almost established itself as a generic name,²⁶ made the technology accessible to the general public.

²⁰ Feldkamp/Kappler/Poretschkin/Schmitz/Weiss ZfDR 1/2024, 60 (105, 112); Kuntz ZfPW 2022, 177 (178); Schürmann ZD 2022, 316 (321); Gaub/Kadler Rethinking Law 6.2022, 4 (6); Ibold GSZ 2024, 10 (13).

²¹ See Wendt/Wendt ZfPC 2024, 86 (86); only China has also passed an AI law, although this only covers individual sectors and generative AI, see Hacker/Berz ZRP 2023, 226 (226); Blasek RD*i* 2023, 557 (557).

²² Haar MMR 2023, 397 (397); Frost/Steininger/Vivekens MPR 2024, 4 (4); Dix/Seyerlein-Klug ZD-Aktuell 2024, 04506.

²³ Möller-Klapperich NJ 2023, 144 (144).

²⁴ See also Meckel/Steinacker, Alles überall auf einmal, 17; Baumgartner/Brunnbauer/Cross MMR 2023, 543 (543).

²⁵ Martini/Wiesehöfer NVwZ 2024, 137 (137).

²⁶ Altenburg/Scherr LTZ 2024, 34 (34).

§ 1 Introduction

Chatbots existed long before ChatGPT. The **GPT models** used in the chatbot 12 have also existed in their various **iterations since June 2018**.²⁷ However, it was the combination of ChatGPT with the then **AI model GPT-3** that made it possible to draft an email, a LinkedIn post or even an entire essay, summarize a meeting that had just been held and reformulate a school report in the style of Shakespeare.²⁸ The improved version of the AI model GPT-3.5 used in ChatGPT, released in March 2023, finally attracted widespread attention.

User numbers for ChatGPT grew to one million people in just five days; after 13 two months, 100 million people were already using the tool.²⁹ This is the **most rapid increase in access to an application** since the invention of the Internet.³⁰

III. Developments in and around OpenAI

Interestingly, the discussion about the changes brought about by generative AI 14 is not only taking place in the media and academia, but also in the company itself that triggered the "**ChatGPT moment**. In the US company **OpenAI**, a farce began to unfold in 2023, which will be briefly recounted here in view of the concerns behind it: Sam Altman, Ilya Sutskever, Elon Musk, Greg Brockman and a few others founded the non-profit organization "Open Artificial Intelligence" – OpenAI – in 2015. Their original goal was to develop open-source AI in a **non-profit organization**. However, as early as 2017, they realized that the financial resources for the development of AI systems could not be procured via the non-profit route. Altman initiated a change in strategy and founded a company under the umbrella of OpenAI in 2019 that was allowed to be profitable – OpenAI LLC. Altman becomes Chief Executive Officer, Musk leaves. New investors join, above all Bill Gates. Microsoft finances Altman's work.³¹ It is also Altman who brings ChatGPT to the public, almost single-handedly starting a **hype**.³² Together with Brockman, Altman becomes the **face of (generative) AI**.

The tide turns during the summer of 2023. Sutskever sees a danger in the rapid 15 progress of artificial intelligence. He fears that a **superintelligence** could disempower humanity. To fight back, Sutskever founds an Alpha Taskforce and calls it the Super-alignment Team – it is supposed to **contain the AI and bind it to rules**. But Altman's work can no longer be contained.

Sutskever rallies the original OpenAI team behind him and **dismisses Altman** on 16 17.11.2023, stating in a public statement that he had not been open in his communication. In response, Brockman also resigned from his role as President of OpenAI. Shortly afterwards, Microsoft announced that Altman was moving to Microsoft, which had invested more than USD 10 billion in OpenAI at the time, to lead a new AI research team. When almost 800 OpenAI employees also threatened to leave for **Microsoft**, Sutskever gave up. OpenAI announces that it has succeeded in bringing Altman back as CEO and Brockman as President.

A good four months later the story continues with another chapter. On 1.3.2024, 17 Musk **filed a lawsuit** in the US **against OpenAI** as well as Altman and Brockman for

²⁷ See also the table in Conrads/Schweitzer NJW 2023, 2809 (2811).

²⁸ Meckel/Steinacker, Everything everywhere at once, 17.

²⁹ The telephone took around 75 years to reach this target, while WhatsApp took three and a half years, i.e. around 21 times as long, see the world of statistics and Haar MMR 2023, 397 (397).

³⁰ Haar MMR 2023, 397 (397).

³¹ Kerkmann/Scheuer, Handelsblatt of 14./15./16.7.2023, 45 et seq.

³² Birska/Röver ARP 2024, 21 (21).

§ 1 Introduction

breach of contract and breach of fiduciary duty. Musk argues that OpenAI has abandoned its original mission to develop artificial intelligence for the benefit of humanity. In the founding agreement, OpenAI was obliged to make its technology open source. Instead, OpenAI had switched to a profit-oriented model and degenerated into a de facto subsidiary of Microsoft. However, the “founding agreement” on which Musk’s lawsuit is based does not appear to be a formal contract, but rather a sentiment based primarily on emails. In response to the allegations, OpenAI made public that Musk had supported the plans to found the for-profit company, and that he even wanted to lead it and merge it with Tesla.

- 18 The extent to which OpenAI will maintain its non-profit status, at least for its parent company, remains unclear. On 26.9.2024, the company announced that it will withdraw the majority stake from the umbrella organization, which controls the for-profit part of the company through the board of directors, and remove the cap on investor returns. On 5.5.2025, the company reversed its decision. Despite months of preparation, OpenAI surprisingly abandoned its plans to transform the company into a purely for-profit start-up. According to a report by the Bloomberg news agency, Microsoft raised concerns and prevented the transformation. Several investors shared Musk’s concerns that, if focused solely on profit, the company could neglect precautions against negative, sometimes even dangerous consequences of AI.³³

IV. Artificial General Intelligence (AGI)

- 19 Another point of attack in Musk’s lawsuit concerns so-called **Artificial General Intelligence** (AGI) research.³⁴ As a very advanced development stage of artificial intelligence, Artificial General Intelligence is said to be characterized by the fact that it is able to solve or process very different tasks and situations without the help and control of a human being, just like “general common sense”. In particular, the degree of autonomy is significantly increased compared to the currently predominant Narrow Artificial Intelligence (NAI) systems.³⁵ However, it is by no means clear which specific capabilities the term encompasses.³⁶ OpenAI recently presented a five-level classification system that maps progress towards AGI: At level 1 are chatbots with conversational capabilities, at level 2 problem solvers at PhD level referred to as reasoners, at level 3 autonomous agents that can perform actions, at level 4 the so-called innovators AI that invents things and at level 5 ultimately as AGI an organizer AI that can take over the work of an entire organization.³⁷ The statement of claim already refers to GPT-4 as an AGI, which can only correspond to the definition if interpreted very broadly. While the GPT-5, -4, -4o and -o1 models continue the trend of exponential improvement over previous versions and bring us closer to a future where AI seamlessly integrates into our daily lives, the reality is arguably less spectacular than the lawsuit suggests.

³³ Alvares de Souza Soares, Handelsblatt 6.5.2025.

³⁴ See also Haar MMR 2023, 397 (398).

³⁵ Cf. Keber/Zenner/Hansen/Schwartzmann in: Schwartzmann/Keber/Zenner Part 1, Chapter 2, para. 8; Hildesheim/Schmid/Holoyad, in: Schmid/Hildesheim/Holoyad, Künstliche Intelligenz – gestern, heute, morgen 3 (14).

³⁶ Hildesheim/Schmid/Holoyad, in: Schmid/Hildesheim/Holoyad, Künstliche Intelligenz – gestern, heute, morgen 3 (14).

³⁷ According to its own information, OpenAI is currently close to Level 2, see <https://the-decoder.com/openai-unveils-five-level-ai-scale-aims-to-reach-level-2-soon/>.

§ 1 Introduction

Q* is also mentioned, another AI model from OpenAI, which is said to be able to solve math problems at primary school level, which is not a matter of course for a language model. 20

American courts must now decide whether GPT-4, Q* or other models are actually already AGI. If GPT-4 was indeed already AGI, OpenAI should never have given Microsoft access to it. The founding statute of OpenAI stipulates that AGIs should be available to all mankind.³⁸ 21

However, Musk has already tried to delay the development of AI several times in the past: In March 2023, he published an open letter together with other big names in the tech industry in which they called for a pause in AI development.³⁹ *“Advanced AI can represent a profound change in the history of life on Earth. [It should be [planned and managed] with appropriate care,”* it says.⁴⁰ It was quickly suggested that concerns for humanity were joined by a desire to buy time in the competition for commercially successful AI systems.⁴¹ In fact, shortly after signing the letter, Musk is said to have pushed ahead with his own **Large Language Model (LLM)** – the chatbot Grok from xAI. According to Musk, Grok is a chatbot that remains “based”. It is expressly not intended to give only politically desired, i.e. “woken” answers and challenge OpenAI.⁴² 22

V. Danger of disinformation

There is no doubt that the use of AI – especially in the context of **chatbots** and **deepfakes** – poses risks to humanity.⁴³ Under the title “AI as a Public Good: Ensuring Democratic Control of AI in the Information Space”, the International Forum on Information and Democracy published a comprehensive study in February 2024⁴⁴, which deals with the **social risks of AI**. The more advanced capabilities and commercial spread of systems such as ChatGPT show their “increasing potential to **profoundly influence democratic processes**, including the information and communication space”, it says. They therefore pose “significant challenges” that “require great attention” 23

Researchers Viviana Padelli, Kaye Celine Palisoc and Lia Chkhetiani found that a significant percentage of AI-driven **misinformation** is related to elections.⁴⁵ There are still many gaps in knowledge in this area, for example about the use of generative AI for **microtargeting** for the purpose of personalized voter manipulation.⁴⁶ Accordingly, AI companies are advised to involve independent researchers and civil society actors as part of an “**inclusive and participatory process**” and to set up procedures for risk mitigation and the systematic collection of user feedback and complaints. They should also cooperate with “trusted whistleblowers” and **inform users about the use of data**. 24

³⁸ See also Glauner in: Ebers/Quarch, Technische Grundlagen von generativen KI-Modellen, para. 58.

³⁹ Krüger/Wagner ZfPC 2023, 124 (124).

⁴⁰ Future of Life Institute 22.3.2023, <https://futureoflife.org/open-letter/pause-giant-ai-experiments/>.

⁴¹ Zellinger Der Standard 5.3.2023; Armbruster FAZ 29.3.2023.

⁴² Mey, Der Standard 12.7.2025; Holtermann/Knees, Handelsblatt 7.2.2024.

⁴³ Berz/Engel/Hacker ZUM 2023, 586 (588); Kumkar/Rapp ZfDR 2022, 199 (200).

⁴⁴ Available at: <https://informationdemocracy.org/wp-content/uploads/2024/03/ID-AI-as-a-Public-Good-Feb-2024.pdf>.

⁴⁵ See also NewsGuard's study on the infiltration of chatbots (OpenAI's ChatGPT, You.com's Smart Assistant, xAI's Grok, Inflection's Pi, Mistral's Le Chat, Microsoft's Copilot, Meta AI, Anthropic's Claude, Google's Gemini and Perplexity's search engine) by Russian government propaganda, <https://www.axios.com/2024/06/18/ai-chatbots-russian-propaganda>.

⁴⁶ See Milne, University of Washington News 6.8.2025; Kühling ZUM 2023, 566 (567).

§ 1 Introduction

- 25 According to the study's recommendations, AI developers should be legally obliged to provide information about the **training data sets** for public review in an easily accessible and comprehensible manner. **Regular impact assessments** and a **systematic risk assessment** should also be regulated by law. Other recommendations include setting standards for the authenticity and origin of content as well as **transparency and labeling obligations**. The creation of a tailored **certification system** for AI companies is also suggested.
- 26 As we will see, the AI Act already covers all of these recommendations.

§ 2

AI – Attempts at a definition

Literature: *Altenburg, Nadia/Scherr, Julius*, Artificial intelligence in law in 2024 – Quo vadis? LTZ 2024, 34; *Ammann, Thorsten/Pohle, Jan*, KI-Verordnung – Was bisher geschah und jetzt zu tun ist, CB 5/2024, 137; *Asenger, Hüveyda*, Künstliche Intelligenz im Strafverfahren und Fairness, InTeR 3/2023, 134; *Ashkar, Daniel/Schröder, Christian*, Das Gesetz über künstliche Intelligenz der Europäischen Union (KI-Verordnung), BB 2024, 771; *Bachgrund, Richard/Nesum, Long/Bernstein, Max/Burchard, Christoph* – Das Pro und Contra für Chatbots in Rechtspraxis und Rechtsdogmatik, CR 2/2023, 132; *Batista, Patricia*, ChatGPT versus Arbeitsrecht – Leistungserbringung mithilfe von Sprachmodellen, LTZ 2024, 118; *Baumgartner, Ulrich/Brunnbauer, Jonas H./Cross, Samuel*, Anforderungen der DS-GVO an den Einsatz von Künstlicher Intelligenz, MMR 2023, 543; *Becker, Daniel/Feuerstack, Daniel*: Der neue Entwurf des EU-Parlaments für eine KI-Verordnung, MMR 2024, 22; *Berz, Amelie/Engel, Andreas/Hacker, Philipp*: Generative KI, Datenschutz, Hassrede und Desinformation – Zur Regulierung von KI-Meinungen, ZUM 2023, 586; *Biermann, Friedrich G.*, Wissenszurechnung und Künstliche Intelligenz, 2022; *Birska, Sylwia/Röver, Timo*: Künstliche Intelligenz in der Prävention, ARP 2024, 21; *Blasek, Katrin*: KI-Regulierung in der Volksrepublik China, RDi 2023, 557; *Bomhard, David/Siglmüller, Jonas*, AI Act – das Trilogergesetz, RDi 2024, 45; *Bomhard, David/Siglmüller, Jonas*, Europäische KI-Haftungsrichtlinie, RDi 2022, 506; *Borges, Georg*, Liability for AI Systems Under Current and Future Law, CRi 1/2023, 1; *Borges, Georg*, Der Begriff des KI-Systems. Tatbestandsmerkmale und Auslegungssätze, CR 11/2023, 706; *Boström, Nick*, Superintelligenz, 2016; *Botta, Jonas*, (K)ein Recht auf Behandlung mit KI? – Access to intelligent medical devices, ZfPC 2024, 42; *Botta, Jonas*, Die Förderung innovativer KI-Systeme in der EU, ZfDR 2022, 391; *Buchalik, Barbara/Gehrmann, Mareike Christine*, Von Nullen und Einsen zu Paragrafen: Der AI Act, ein Rechtscode für Künstliche Intelligenz, CR 3/2024, 145; *Burchardi, Sophie*, Risikotragung für KI-Systeme, EuZW 2022, 685; *Busche, Daniel*, Einführung in die Rechtsfragen der künstlichen Intelligenz, JA 2023, 441; *Buxmann, Peter/Schmidt, Holger*, Grundlagen der Künstlichen Intelligenz und des Maschinellen Lernens, in Buxmann, Peter/Schmidt, Holger (eds.), Künstliche Intelligenz, 2019; *Conrads, Markus/Schweitzer, Sascha*: Einsatz Künstlicher Intelligenz im Vertrags-, Wirtschafts- und Arbeitsrecht, NJW 2023, 2809; *Dix, Alexander/Seyerlein-Klug, Annegrit*, EAID: Exportschlag AI Act – Setzt die EU einen weltweiten Standard für die KI-Regulierung? ZD-Aktuell 2024, 04506; *Ebers, Martin/Quarch, Benedikt*, Rechtshandbuch ChatGPT, 2024; *Ebert, Andreas/Busch, Philip/Spiecker gen. Döhmman, Indra/Wendt, Janine*, Roboter im Supermarkt, ZfPC 2023, 16; *Ensthaler, Jürgen*, Zum neuen Verhältnis zwischen Rechtswissenschaft und Technik, ZRP 2022, 55; *Ensthaler, Jürgen*, Künstliche Intelligenz (KI) – einige Gedanken zu den vorhandenen und geplanten Schutzmaßnahmen, InTeR 1/24, 2; *Feuerstack, Daniel/Becker, Daniel/Hertz, Nora*, Die Entwürfe des EU-Parlaments und der EU-Kommission für eine KI-Verordnung im Vergleich, ZfDR 2023, 421; *Floridi, Luciano*, On the Brussels-Washington -Consensus About the Legal Definition of Artificial Intelligence, Philos. Technol. 36, 87, 2023 <https://doi.org/10.1007/s13347-023-00690-z>; *Floridi, Luciano*, The European Legislation on AI: a Brief Analysis of its Philosophical Approach, Philos. Technol. 34, 215–222, 2021, <https://doi.org/10.1007/s13347-021-00460-9>; *Frost, Yannick/Steiniger, Manuela/Vivekens, Sabrina*, Take the risk or lose the chance? Essential questions that companies should consider from a legal perspective in the field of AI, MPR 2024, 4; *Gaub, Daniela/Kadler, Mathias*, Die Beeinflussung von menschlichem Verhalten durch Künstliche Intelligenz – Chance oder Gefahr? Rethinking Law 6.2022, 4; *Gengler, Eva*, Feministische Künstliche Intelligenz, Rethinking Law 6.2022, 32; *Gumpff, Tobias/Schneider, Marc Pierre*, Methoden der Künstlichen Intelligenz in der Rechtswissenschaft, ZfDR 2021, 155; *Haar, Tobias*, KI-Regulierung: Gelingt die Quadratur des Kreises? MMR 2023, 397; *Hacker, Philipp*: The regulation of ChatGPT et al. – ein europäisches Trauerspiel, GRUR 2023, 289; *Hacker, Philipp/Berz, Amelie*, Der AI Act der Europäischen Union – Überblick, Kritik und Ausblick, ZRP 2023, 226; *Hahn, Johanna*, Die Regulierung biometrischer Fernidentifizierung in der Strafverfolgung im KI-Verordnungsentwurf der EU-Kommission, ZfDR 2023, 142; *Jin, Junqi/Song, Chengru/Li, Han/Gai, Kun*, Real-Time Bidding with Multi-Agent Reinforcement Learning in Display Advertising 2018, DOI:10.1145/3269206.3272021; *Kerkmann, Christof/Scheuer, Stephan*, Das Microsoft-Prinzip, Handelsblatt vom 14./15./16.7.2023, 42; *Martini, Mario*, Blackbox-Algorithmus, 2019; *Martini, Mario/Wiesehöfer, Christine*, Auf dem Weg zur Regulierung von General-Purpose-AI – eine erste Bestandsaufnahme und Kritik der Regelungsentwürfe, NVwZ 1/2024, 1; *Meckel, Miriam/Steinacker, Léa*, Alles überall auf einmal, 2024; *Mühleis Niklas/Akinci, Nick*, Rechtsleitfaden KI im Unternehmen, 2024; *OECD*, Künstliche Intelligenz in der Gesellschaft, 2020; *Pesch, Paulina Jo/Böhme, Rainer*, Verarbeitung personenbezogener Daten und Datenrichtigkeit bei großen Sprachmodellen, MMR 2023, 917; *Polanyi, Michael*, The Tacit Dimension, 1966; *Prange, Hans Michael*, Datenschutz- und lauterkeitsrechtliche Kernfragen des Einsatzes Künstlicher Intelligenz im Marketing, WRP 2024, 151; *Russell, Stuart/Norvig, Peter*, Artificial Intelligence, 4th ed. 2021; *Schmid, Thomas/Hildesheim, Wolfgang/Holoyad, Taras*, Künstliche Intelligenz managen und verstehen, 2023; *Schwartzmann, Rolf/Keber, Tobias/Zenner, Kai*, KI-

§ 2 AI – Attempts at a definition

Verordnung. Leitfaden für die Praxis, 2024; Schürmann, Kathrin, Datenschutz-Folgenabschätzung beim Einsatz Künstlicher Intelligenz, ZD 2022, 316; Searle, John R., The Behavioral and Brain Sciences, Vol. 3/1980, 417; Turing, Alan M., Computing Machinery and Intelligence, Mind 236/1950, 433; Wendehorst, Christiane/Nessler, Bernhard/Aufreiter, Alexander/Aichinger, Gregor, Der Begriff des “KI-Systems” unter der neuen KI-VO, MMR 2024, 605; Wendt, Domenik/Jung, Constantin, Europäischer Rechtsrahmen für Künstliche Intelligenz (Teil I), LRZ 2021, 34; Wendt, Janine/Wendt, Domenik, Einigung auf Rechtsrahmen für Künstliche Intelligenz in der EU, ZfPC 2024, 86.

I. Can machines think? The Turing test	1
II. Definitions matter: Development of the concept of artificial intelligence at the Dartmouth conference	2
III. First modern definition of artificial intelligence by the OECD	6
IV. Definition of artificial intelligence in the AI Act	8
1. Regulation in the AI Act itself	8
2. Regulation in the Commission Guidelines	15
V. Further development	20
VI. Polanyi Paradox	28
VII. Sub-areas of AI	31
1. Machine learning	33
a) Supervised learning	36
b) Non/partially supervised learning	38
c) Reinforcement learning	41
2. Deep learning	44

I. Can machines think? The Turing test

1 In overviews¹, the development of the concept of AI regularly begins in 1950 with the **Turing test**.² With this test, the British mathematician Alan Turing formulated a procedure in 1950 to determine whether a computer, as a machine, has **the same thinking ability as a human being**.³ Turing himself called the test the “Imitation Game”. The procedure of the test was modified and simplified several times over the years, especially after Turing’s early death in 1954, so that in its most common form it follows a **simple structure**: A human questioner holds a conversation with two interlocutors unknown to him via a keyboard and a screen, i.e. without visual or auditory contact. One interlocutor is a human, the other a machine. If, after intensive questioning, the interviewer cannot tell which of the two is the machine, the machine has passed the Turing test and is considered to be artificially intelligent. Turing assumed that by the year 2000 it would be possible to program computers in such a way that an average user would have a maximum of 70 % chance of successfully distinguishing between a human and a machine after “talking” to them for five minutes.⁴ Since April 2023, the “**Human or not**” platform operated by the Tel Aviv-based company AI21labs, which describes itself as the “biggest Turing test of all time”, has been putting this to the test.⁵ In a browser-based self-test based on current large language models such as GPT-4 or Jurassic-2, the company analyzed 15 million conversations that took place on the website. 68 % of the human participants answered the question of whether they were communicating with an AI or a human correctly. The fact that Turing’s prediction was not fulfilled can be seen as proof of the complexity of reproducing human intelligence.

¹ Buxmann/Schmidt, Artificial Intelligence, 3rd ed.

² For AI methods dating back to the 1930s, however, see Glauner in: Ebers/Quarch, Technische Grundlagen von generativen KI-Modellen, para. 2.

³ Turing, Computing Machinery and Intelligence, 433.

⁴ Turing, Computing Machinery and Intelligence, 442.

⁵ S. <https://humanornot.so>.

II. Definitions matter: Development of the concept of artificial intelligence at the Dartmouth conference

The Turing test was followed in the 1950s by a series of other events in the further development of the term AI. The 1956 **Dartmouth Conference**,⁶ which is considered the birth of artificial intelligence as a field of research and coined the term, stands out:⁷ Under the full name Dartmouth Summer Research Project on Artificial Intelligence, it took place in the summer of 1956 at Dartmouth College in Hanover, New Hampshire. It was proposed, planned and carried out by John McCarthy, Marvin Minsky, Nathaniel Rochester (IBM) and Claude Shannon. In their proposal to the Rockefeller Foundation, in which they applied for a grant of USD 13,500 in August 1955, they formulated the **core elements** of an AI research project for the first time:

“We propose to hold a seminar on artificial intelligence with ten participants at Dartmouth College over two months during the summer of 1956. The seminar will be based on the assumption that, in principle, all aspects of learning and other features of intelligence can be described so precisely that a machine can be built to simulate these processes. We will try to find out how machines can be made to use language, make abstractions and develop concepts, solve problems of the kind currently reserved for humans, and improve themselves further. We believe that significant progress can be made in one or other of these problem areas if a carefully assembled group of scientists work together for a summer.”⁸

Specifically, the following sub-topics should already be addressed:

How must a **computer** be programmed to use a **language**? What requirements must be placed on **neural networks** and their ability to **learn autonomously**? What considerations are relevant to the scope of a computing operation? How does the system deal with **randomness** and **creativity**?

Each of these questions still played a role in the draft AI Act (AI Act-D) 65 years later.

In between, there were many years in which the technical foundations of AI changed fundamentally. The so-called symbolic AI⁹ and its logic-based systems, which were modeled on human thinking, were initially followed by a period of disillusionment in the 1970s, the “**AI winter**”.¹⁰ In the 1990s, the chess computer Deep Blue brought AI back to the fore. From 2011 onwards, significant progress was finally made in **machine learning**, a sub-area of AI based on a statistical approach (margin no. 24). As the modeling technology of machine learning became increasingly sophisticated, the ability of systems to derive forecasts from historical data improved. The term “**neural networks**” became established; it went hand in hand with the need for larger data sets and computing capacities.¹¹

III. First modern definition of artificial intelligence by the OECD

The **OECD**'s definition of artificial intelligence proved to be another important milestone on the road to the AI Act. Based on the results of the OECD conference “AI: Intelligent Machines, Smart Policies” in October 2017 and subsequent discussions, the

⁶ Busche JA 2023, 441 (441).

⁷ For the history of development, see Buxmann/Schmidt, Künstliche Intelligenz, 3rd ed.

⁸ McCarthy et al, funding application 1955, 1.

⁹ Keber/Zenner/Hansen/Schwartzmann in: Schwartzmann/Keber/Zenner, AI Regulation, Part 1, Chapter 2, para. 2 et seq.

¹⁰ OECD, Artificial intelligence in society, 20.

¹¹ See also Berz/Engel/Hacker ZUM 2023, 586 (587).

Index

Bold numbers refer to articles, normal ones to margin numbers.

- Abstract knowledge 2 29
- Acceptability 3 26, 61
- Accessibility 5 43, 6 35
- Adaptability 2 12, 6 44
- Ad hoc gap filling 11 24
- Advisory forum 13 30 ff.
 - chair 13 34
 - composition 13 31
 - organization 13 31
 - permanent members 13 33
 - representative 13 32
 - session 13 35
 - subgroup 13 35
 - tasks 13 36 f.
- AI, medicine 1 2
- AI Act
 - extraterritorial effect 3 56 f., 61
 - material scope of application 3 62 ff.
 - personal area of application 3 49 ff.
 - prohibited practices 5 3
 - risk levels 5 1
 - spatial scope of application 3 53 ff.
 - temporal scope of application 3 69
- AI Act-E 3 11
 - Definition of AI 2 8
 - Software 2 8
- AI application
 - chatbot 1 3
 - innovative ability 1 4
 - labor market 1 5
- AI Board 13 22
 - composition 13 23
 - meetings 13 25 f.
 - organization 13 23
 - representative 13 23 f.
 - rules of procedure 13 25
 - subgroups 13 26
 - tasks 13 27 ff.
- AIGO, OECD 2 6
- AI index report 2 23
- AI liability directive 15 1 ff., 10 f., 14, 19 ff.
 - causal link 15 17
 - coupling of presumption rules 15 18
 - disclosure of evidence 15 12 f.
 - preservation of evidence 15 15
 - presumption 15 16
- AI-Literacy 4 1 f., 4 f., 9 f., 13 f., 16 f., 6 46, 49, 52, 8 5
 - AI officer 4 15
 - AI training 4 1
 - automation biases 6 51
 - empowerment for human-AI interaction 4 8
 - general AI literacy 4 6 f.
 - interaction 6 50
 - knowledge 4 3 f.
 - living repository 4 19 f.
 - objective of the specification 4 2 f., 10 f., 13 f.
 - personnel of national authorities 4 20
 - skills 4 3 f.
 - specific AI literacy 4 7 f., 12 f.
 - staff in national competent authorities 13 54
 - tiered structure 4 11 f.
 - training 6 50
 - training measures 4 9
 - understanding 4 3
- AI models 3 62
 - GPT-3 1 11 f.
 - GPT-3.5 1 12
 - Q* 1 20
- AI models with general purpose 3 48, 11 4, 10, 13, 20 ff., 13 12
 - ChatGPT 3 17
 - copyright 11 35, 37 ff.
 - duty to inform 11 29
 - list 11 28
 - open source 11 63 f.
 - opting out 11 30
 - provider obligation 11 29
 - revaluation 11 31
 - systemic risk 5 2, 11 23, 64, 71 ff.
 - technical documentation 11 33 ff.
 - without systemic risk 11 32 ff.
- AI Office 13 4, 9, 18
 - codes of practice 13 13
 - composition 13 10
 - cooperation with other institutions and interest groups 13 20
 - further tasks 13 16 f., 19
 - GPAI Code of practice 13 13
 - model contract terms 7 86
 - monitoring actions 13 14
 - organization 13 10
 - organizational structure 13 11
 - overlapping of powers 13 21
 - sample 7 99
 - tasks 13 12 f.
- AI officer 4 16 f.
- AI systems 2 10 f., 3 62
 - autonomous operation 2 11
 - definition of 2 8
 - etic dilemma 1 5
 - machine-supported system 2 11
 - market concentration 1 5
 - substantial modification 7 74 ff., 81 f.
- AI systems with general purpose 2 13, 3 48, 69, 5 2, 11 13 f., 16, 20 ff.
 - chatbot 11 15

Index

- AI white paper 3 10
- AI winter 2 4 f.
- Amendment, essential 9 25
- Anthropocentric approach 3 28
- API 11 12
- Application programming interface 11 12
- Area of application
 - more factual 3 62 ff.
 - more personal 3 49 ff.
 - spatial 3 53 ff.
 - timing 3 69
- Artificial general intelligence (AGI) 1 15, 21
 - intellectual abilities 1 19
- Authorization, interim 9 29
- Authorized representative 3 56, 7 27
 - contact details provider 7 30
 - cooperation with authorities 7 32
 - GPAI model 11 65 ff.
 - obligation to register 7 33
 - order 7 28 f., 34
- Automatically generated logs 7 42 ff.
 - storage 7 18 ff.
- Autonomous agents 2 25 ff.
- Autonomous learning 2 3
- Autonomy 2 11 f., 3 29, 6 44, 15 7
- Banks 7 110
- Basic model 11 4
- Basic rights 3 29
- Better regulation 3 39
- Biases 3 30, 6 15, 19 ff.
 - data gaps 6 16
 - distribution 5 47
- Billing per access 11 18
- Bing 1 20
- Biometric remote identification 6 53
 - authorization 5 24
 - overall assessment 5 24
 - reference database 6 32
- Black box 2 45 f., 49
- Black box effect, causal link 15 7
- Brussels effect 1 10, 3 2
- Causal link, presumption 15 16
- CE marking 7 65, 9 36, 39
 - mandatory 9 38
 - representation 9 37
- Certificate
 - period of validity 8 18
 - restriction 8 19
 - revocation 8 19
 - suspension 8 19
- Certificate of conformity 8 17
- Charter of fundamental rights of the EU 3 40
- Chatbot 1 3, 22 f., 2 20, 5 44
- ChatGPT 1 12 f.
 - blockade 3 58
 - moment 1 14
- Civil liability 15 1 ff.
- Codes of conduct 5 45, 14 1, 3 ff., 7
 - civil society organizations and universities 14 6
 - governance mechanisms 14 2
- Codes of practice, uniform interpretation of the transparency provisions 10 22
- Commission guidelines 5 4
- Commissioning without authorization 9 31
- Committee, composition 9 6
- Committee JTC 21 9 2
- Communication in easy-to-understand language 7 62 f.
- Competitiveness
 - AlephAlpha 5 51 f.
 - Mistral AI 5 51 f.
- Complexity 3 29
- Compliance 6 8, 10, 31 f.
 - accuracy 6 5, 54 f.
 - CE marking 6 6, 7 58
 - complaints management 7 90
 - conformity assessment 6 6, 7 58
 - cooperation with authorities 7 61
 - cybersecurity 6 5, 54, 58 ff.
 - data governance 6 5, 11 ff.
 - declaration of conformity 6 6
 - documentation 6 6
 - documentation keeping 6 29, 31
 - human oversight 6 5, 40 ff., 53, 7 90
 - instructions for use 6 5, 35 ff., 7 58, 90
 - market observation 6 30
 - provision of information 6 33 f.
 - quality management 6 6
 - recall 7 68
 - record-keeping 6 5 f.
 - registration 6 6
 - risk management 6 5, 7
 - robustness 6 5, 54, 56 f.
 - technical documentation 6 5, 22 ff., 7 58
 - transparency 6 5
- Compliance by design 6 9, 10 1
- Complications, moment of time 3 16
- Computer, language 2 3
- Concept relevance propagation 2 48
- Confidential business information 7 88
- Conformity 7 70
 - certificate 8 17
 - correction 7 23
 - corrective measures 7 21
 - proof 7 24 f.
 - recall 7 22
- Conformity assessment 3 44, 5 30, 6 39, 8 5 ff., 17, 9 13
 - conformity assessment body 8 1 ff.
 - external 9 13

Index

- internal 9 13
- internal control 9 23
- new 9 25
- proportionality 8 16
- relief 12 14 f.
- remote biometric identification 9 20
- self-conformity assessment 9 13
- SMES 8 16
- start-ups 8 16
- third-party conformity assessment 9 13
- Conformity assessment bodies 8 1 f., 4, 6 ff.
- establishment under the law of a third country 8 23
- Conformity assessment by third parties 9 17
- Conformity assessment procedure 8 22
- delegated act 9 27
- repetition 9 24
- substantial modification 9 24
- Control system 1 10
- Cooperation with authorities, automatically generated logs 7 25
- Copilot 1 20
- Copyright 11 50 f.
- reservation of use 11 47
- Corrective measures 7 68
- Creativity 2 3
- Critical infrastructure 7 95
- Cross-sector 3 36
- Custom-GenAI 11 16
- Cybersecurity 8 4, 6, 9, 11 74 f.
- data poisoning 6 59
- declaration of conformity 6 61
- model poisoning 6 59
- Database for high-risk AI systems 9 40
- details 9 44 ff.
- furnishings 9 47
- information about the AI system 9 43
- information on 9 42
- subject to registration 9 41
- Data dependency 3 29
- Data governance 7 41
- intended use 6 11
- training data 6 10, 17 f.
- validation and test data 6 13 f., 17 f.
- Data poisoning 6 59
- Data protection 3 31
- authority 5 25
- Data protection impact assessment 7 102 f., 105, 107 ff.
- negative list 7 106
- person responsible 7 104
- positive list 7 106
- Data protection law
- access restrictions 6 20
- deletion of data 6 21
- documentation 6 20
- Dathamouth conference 2 2
- Declaration of conformity 7 65, 9 32
- contents 9 34
- cybersecurity 6 61
- storage 9 33
- update 9 33
- Deep blue 2 4 f.
- Deepfake 1 23, 5 44
- risk of falsification of media content 10 6
- watermarks 10 8 ff.
- Deep learning 2 9, 31 f., 49
- hidden layer 2 45
- input layer 2 45
- neural networks 2 44 f.
- output layer 2 45
- Definition of AI 2 2, 6 ff.
- AI Act-E 3 7 f.
- deep learning 2 9
- machine Learning 2 9
- statistical approaches 2 9
- Definition of AI (OECD)
- autonomy 2 6
- technology-neutral 2 6
- Definition of AI system
- adaptability 2 10
- AI Act-E 2 8
- autonomy 2 10
- Delegated acts 5 38 ff., 6 26, 13 5
- Democratic control 3 40
- Deployer 3 49 ff., 4 1, 6 6, 33, 45 ff., 7 1, 23, 35, 40 f., 56, 72 f., 91 ff., 100, 113, 14 1
- banks 7 92
- compliance 7 71 ff., 83 ff., 114
- data protection impact assessment 7 45
- establishment of the EU 7 44
- financial institutions 7 39, 42
- instructions for use 7 36 f.
- insurances 7 92
- monitoring 7 43
- public service 7 93
- serious incident 7 38
- subsequent biometric remote identification 7 46 ff.
- Development of the AI Act 3 3
- DG CONNECT 13 10
- Disclosure of evidence 15 13
- Disinformation 1 23
- Distributor
- compliance 7 65 ff.
- notification of the supervisory authority 7 69
- Documentation 7 113
- declaration of conformity 7 15
- storage 7 14 ff.
- technical documentation 7 15
- Duties, specification of contact details 7 3
- Effectiveness 11 23
- of the conformity assessment 9 28
- Efficiency 11 23

Index

- Electronic person 3 5
- Emotion recognition 3 42
 - educational institution 5 15 ff.
 - workplace 5 15 ff.
- Enforceability 3 54
- Enforcement measures 13 63 f.
- E-person 3 5
- Establishment of the EU, registration database 7 44
- Establishment principle 3 53
- Ethics guidelines 3 9 f., 6 43
 - accountability 3 9
 - data quality management 3 9
 - diversity 3 9
 - ecological well-being 3 9
 - fairness 3 9
 - human oversight 3 9
 - non-discrimination 3 9
 - primacy of human action 3 9
 - protection of privacy 3 9
 - social well-being 3 9
 - technical robustness and safety 3 9
 - transparency 3 9
- EU Agency for Cybersecurity 13 33
- EU Agency for Fundamental Rights 13 33
- EU commission 3 4, 7, 5 38 f., 41, 13 4
 - annual reports 5 26 f.
 - delegated acts 13 5
 - delegation of power 13 4
 - guidelines 2 14 f., 5 37, 13 6
 - level of protection 5 40
 - sample template 5 26
- EU parliament 3 5 f.
- European Artificial Intelligence Board 13 22
 - composition 13 23
 - meetings 13 25 f.
 - organization 13 23
 - representative 13 24
 - rules of procedure 13 25
- European body for AI 5 37
- European Committee for Electrotechnical Standardization 13 33
- European Committee for Standardization 13 33
- European Data Protection Supervisor 13 26
- European Panel for Artificial Intelligence, Tasks 13 27 ff.
- European Telecommunications Standards Institute 13 33
- Events, automatically generated logs 6 31
- Example of rule 7 106
- Exception 5 33
 - examples 5 34
- Exchange of information 8 14
- Explainable AI (XAI) 2 46
- Extraterritorial effect 3 53 ff., 59 ff.
- Face recognition 2 38
- Fake news 1 5
- Financial institution
 - credit institution 7 13
 - insurance company 7 13
- Floating point operations 5 49 ff., 11 25
 - threshold value 11 26 f.
- FLOP 5 49 ff., 11 25
 - threshold value 11 26 f.
- Fundamental rights impact assessment 5 23, 7 90 ff., 102 ff., 9 46
 - liberation 7 101
- Future viability 9 26
- Generally acknowledged state of the art 6 2
- General-purpose AI 2 13, 11 4, 10, 12 ff., 16
 - chatbot 11 15
 - computing power 11 6 ff.
 - criterion 11 22
 - no predefined area of application 11 20
 - systemic risk 11 23
 - trilogue 11 21
- General-purpose AI model (GPAI model) 3 48, 5 48, 50 ff.
 - AI model with general purpose 2 13
 - authorized representative 11 65 ff.
 - ChatGPT 3 17
 - copyright 11 35, 37 ff.
 - high impact capabilities 5 47 ff.
 - impact 5 49 ff.
 - list 11 28
 - opting out 11 30
 - reevaluation 11 31
 - systemic risk 5 2, 46 f., 11 71 ff.
 - technical documentation 11 33 ff.
 - without systemic risk 11 32 ff.
- General-purpose AI system (GPAI system) 3 48, 5 46
 - AI systems with a general purpose 2 13
- Generative AI 11 1 f.
- Generative AI systems, functionality 11 3
- Governance framework 13 1
- GPAI 11 5, 13 f., 16, 20 ff.
 - application programming interface 11 12
 - chatbot 11 15
 - systemic risk 11 23
- GPAI code of practice 11 51 ff.
- GPAI guidelines 7 77 f., 81
 - substantial modification 7 79 f.
- GPAI models see General-purpose AI model (GPAI model)
- GPAI system see General-purpose AI system (GPAI system)
- GPT model 1 12
- Guidelines 2 14 f.
 - boundaries 13 8
 - elaboration 13 6
 - no general guideline competence 13 8

Index

- orientation framework 13 7
- publication 13 6
- Harmonized standards 9 1 f., 8
 - alternative 9 9
 - CEN 6 7
 - CENELEC 6 7
 - implementing acts establishing common specifications 9 9
- Health 3 40
- Heatmaps 2 47
- Hidden layer 2 45
- High effectiveness, systemic risk 11 71
- High efficiency 11 25
- High-Level expert group (HLEG) 3 10
 - ethics guidelines 3 9
- High-risk AI 3 43, 69, 5 28, 37, 6 2, 4, 7 ff., 53 ff., 7 1 ff., 6 ff., 27 f., 32 ff., 81 ff.
 - appendix III 5 41
 - classification 5 29 ff.
 - compliance 6 3, 5 f.
 - compliance-by-design 7 5
 - conformity 7 21 ff., 31
 - declaration of conformity 7 29 f.
 - requirements 6 1
- High-risk AI systems 5 31, 33 f., 6 1, 4, 33
 - classification 5 30
 - compliance 6 3, 5
 - conformity assessment procedure 9 14
 - self-assessment 9 14
 - third-party conformity assessment 9 14
- Horizontal regulation 3 15, 36 f., 46
- Human or not 2 1
- Human oversight 6 41 ff.
 - AI literacy 7 40
- Hype 1 14
- IEC 9 7
- Implementing acts 12 24
- Importer 3 52, 7 57
 - compliance 7 58 ff.
 - contact details 7 60
- Increased efficiency 1 1
- Influence, not material 5 33
- Information on serious incidents 11 73
- Innovative ability 1 4
- Input layer 2 45
- Instructions for use 6 35 ff., 39, 55, 7 65
 - accessibility 6 35
 - updates 6 38
- Insurances 7 110
- Integration 1 3
- Intellectual property 3 6, 7 88
- Intended use, misuse 6 7
- International AI safety report 1 6 f.
- International cooperation 1 9
- Intuitive knowledge, tacit knowledge 2 29
- Investments 3 31
- ISO 9 7
- Joint technical committee 9 5
- Judicial reservation 7 52
- Labor market 1 5, 2 30, 3 32, 34
- Large language model 1 22
 - fine-tuning 11 3
 - pre-training 11 3
- Law enforcement agency 7 38
- Legal remedies 13 65 f.
- Legal tech 5 45
- Legislative process 3 4
- Liability 15 1 ff.
- Machine learning 2 4 f., 9, 32 ff., 36, 38, 44
 - autonomy 2 31 ff.
 - reinforced learning 2 35, 41 ff.
 - reward function 2 41
 - supervised learning 2 35
 - training data 2 39
 - trial-and-error processes 2 42
 - unsupervised/partially supervised learning 2 35
- Machine-supported system, AI system 2 11
- Manufacturer 3 52, 7 104
- Market location principle 3 53
- Market observation, notification of a serious incident 7 9
- Market research 2 38
- Market surveillance authority 5 25 f., 7 34, 37 f., 59, 13 60 ff.
 - authorization 9 29 f.
- Material scope of application 3 62 ff.
 - exceptions 3 63
- Medicine, medical progress 1 2
- Member states, criticism of common specifications 9 10
- Meta, Lllama 3 2 24
- Metaverse 5 5
- Microsoft 1 16
- Microtargeting 1 24
- Misinformation 1 24
- Model evaluation 11 72
- Model poisoning 6 59
- Moment 1 11
- Monitoring, co-determination 7 43
- Monitoring actions of the AI Office
 - conducting evaluations 13 14
 - qualified alerts 13 14
 - requesting measures 13 14
 - requiring information 13 14
- NANDO database 9 21
- Narrow artificial intelligence (NAI) 1 19
- National authorities 13 3

Index

- National competent authority 13 48
 - appropriate equipment 13 54
 - central contact point 13 51
 - equipment 13 49
 - impartial 13 50
 - independent 13 50
 - market surveillance 13 49, 60 ff.
 - notification 13 57
 - notifying authority 13 49
 - organization 13 49
 - requirements for personnel 13 54
 - tasks 13 55 f.
 - time frame for designation 13 52
 - time frame for the installation 13 52
 - unbiased 13 50
- National competent authority in Germany,
Federal Network Agency (BNetzA) 13 52 f.
- National security 3 63
- Neural networks 2 3 ff.
 - node 2 44
- New legislative framework (NLF) 6 28, 9 15 f.,
13 55
- Non-significant influence 5 33
- Notification 8 1 ff., 13 58
 - revocation 8 21
 - suspension 8 21
- Notified bodies 7 26, 34, 62, 8 1, 3, 16 f.
 - AI literacy 8 5
 - branch office 8 6, 11 ff.
 - confidentiality 8 10
 - consulting 8 7
 - cooperation 8 14 f.
 - cybersecurity 8 4
 - doubts about competence or fulfillment of
duty 8 20
 - exchange of information 8 14 f.
 - identification number 9 39
 - independence 8 7 f.
 - integrity 8 7 f.
 - investigation of breaches of duty 8 21
 - liability 8 12 f.
 - outsourcing 8 6, 10 ff.
 - procedural guidelines 8 9
 - quality management 8 4
 - resources 8 4
 - staff equipment 8 5
 - transparency 8 11
- Notifying authorities 8 1 f., 11, 13 56 f.
 - exchange of information 8 14 f.
- Obligation to register 5 36
- OECD
 - AIGO 2 6
 - definition of AI 2 6
- Office for Artificial Intelligence 13 9
- Opacity 3 29 f., 15 7
- OpenAI 3 53, 58
 - chatbot 1 11
 - ChatGPT 1 11 ff.
 - dismantling the non-profit status 1 18
 - GPT-5 2 24
 - lawsuit against OpenAI 1 17
 - Microsoft 1 16
 - non-profit organization 1 14
- Open source 7 87
 - privilege 11 63
- Open source AI, open source 3 64 ff.
- Opting out 5 36, 9 45
- Output 2 36, 3 55
 - layer 2 45
- Penalties 13 63 f.
- Period of validity, extension 8 18
- Personal area of application 3 49 ff.
- Personal data 6 12
 - anonymized data 6 19
 - artificial data 6 19
 - data protection law 6 20 f.
- Person responsible 7 104
- Planning tasks 2 23
- Polanyi paradox 2 30
 - intuitive knowledge 2 28 ff.
- Political agreement 3 22
- Predictions 1 2
- Predictive policing 3 42
- Prejudice 1 5
- Preservation of evidence 15 15
- Presumption of conformity 9 8, 11
- Prevention 6 42
- Processor 7 104
- Productivity increase, cost reductions 1 1
- Product liability 15 3 ff.
- Product liability directive 15 2 ff.
 - Disclosure of evidence 15 8
 - Software 15 3 f.
- Product liability guideline 15 1
- Product monitoring obligation 6 8
- Product safety law 3 27, 36, 5 31, 6 4
 - compliance 6 3
 - parallel sector-specific requirements 9 35
- Product safety regulations 3 27, 36
- Profiling 5 35
- Prohibited practices 3 69, 5 3, 19 ff.
 - authorization 5 26
 - creation of databases 5 14
 - emotion recognition 3 42, 5 15 ff.
 - exploiting the need for protection 5 9
 - facial recognition 5 14
 - market surveillance authority 5 26
 - predictive policing 3 42, 5 12 f.
 - profiling 5 12 f.
 - social scoring 3 42, 5 10 f.
 - subliminal influence 5 5 ff.
- Promotion of innovation
 - measures 12 1
 - SMES 12 1

Index

- start-up 12 1
- Protection of privacy 1 5
- Protocol, standardized 11 72
- Provider 3 49 ff., 4 1, 5 46, 6 6, 12, 34 ff., 41, 7 1 f., 10 ff., 14 f., 18 f., 21 ff., 26, 38, 72 f., 100, 114, 14 1
 - authorized representative 6 37
 - bankruptcy 7 16
 - compliance 7 71 ff., 83 ff.
 - cooperation with authorities 7 24 f., 31
 - duties 7 4 ff.
 - financial institution 7 13, 17, 20
 - from third countries 7 27, 29 f., 32 ff.
 - obligations of the providers 7 3
- Purpose of the AI system
 - Accessibility and use of basic private and basic public services and benefits 5 32
 - Administration of justice and democratic processes 5 32
 - Biometrics 5 32
 - Critical infrastructure 5 32
 - Education and vocational training 5 32
 - Employment 5 32
 - Migration, asylum and border control 5 32
 - Personnel management 5 32
 - Prosecution 5 32
- Quality management system 7 7, 9, 12 f., 8 4, 6, 9
 - communication 7 10
 - data management 7 8
 - proportionality 7 11
 - test and validation procedures 7 6
- Randomness 2 3
- Real-time remote biometric identification 3 18 ff., 5 22
 - Compromise 3 21
 - ex-post use 3 19
 - facial recognition 3 18
 - gait recognition 3 18
 - Opting-in 5 21
 - Opting out 5 21
- Real world testing plan 12 19
- Reasoned request 7 31
- Recitals 3 24
- Recording obligations, automatically generated logs 6 29
- Regulatory sandbox 12 1 f., 9 ff., 18
 - access 12 5 ff.
 - application 12 5
 - consulting 12 4
 - demand 12 6
 - exit 12 8
 - fine 12 13
 - free of charge 12 5
 - implementation 12 8
 - instruments 12 4
 - liability 12 13
 - member State 12 3
 - monitoring 12 8
 - plan 12 9
 - proof 12 14
 - risk 12 17
 - significant risks 12 12
 - technical support 12 4
 - termination 12 8
 - test 12 16 f., 19 f.
- Reinforced learning, reward function 2 41
- Remedial measures 8 21
- Remote biometric identification 5 19
 - authorization 5 25
 - data protection authority 5 25 f.
 - market surveillance authority 5 25
 - overall assessment 5 23
 - prosecution 5 20
 - protective measures 5 23
- Reporting obligation 7 99
- Representative, competencies and powers 13 24
- Retailer 3 52, 7 64
- Reverse exception, profiling 5 35
- Risk 1 7 f., 3 40, 5 42 f., 7 59, 102 f., 112 ff.
 - basic rights 3 40
 - distorted feedback loops 6 57
 - international AI Safety Report 1 6 f.
 - limited 5 43
 - minimal 5 45
 - moderate 5 43
 - none 5 45
 - systemic 11 23
 - unacceptable 5 3
 - within the meaning of the GDPR 7 107 ff.
- Risk assessment, certification 1 25
- Risk-based regulation 3 37 f., 41, 46, 5 1
 - tiered system 3 39
- Risk-based regulatory approach 3 41, 7 103
 - risk level 3 41
 - target intensity 3 41
- Risk levels 5 1
- Risk management system 7 9, 13
- Risk pyramid 3 43, 45, 5 42 f., 45
 - risk levels 3 42
- Risk reduction 6 42
- Robustness
 - resilience 6 56
 - self-learning AI systems 6 57
 - technical redundancy 6 56
- Safety component 3 44, 5 30
- Scientific committee, experts 13 47
- Scientific panel 13 38 ff.
 - composition 13 39
 - confidentiality 13 47
 - experts 13 46
 - requirements 13 40 f.
 - tasks 13 43 ff.
 - term of office 13 42

Index

- Scientific research, prototype 3 63
- Security 3 40
- Self-commitment 3 45
- Semi-supervised learning 2 39 f.
- Serious incident
 - immediate measures 12 21
 - recall 12 22
- Significant risks, risk measures 12 12
- Single points of contact 13 48
- SMES 8 16
 - start-ups 6 27
- Social risk 1 23
- Social scoring 3 42
- Spam filter 5 45
- Spatial scope of application 3 53 ff.
 - establishment principle 3 53
 - market location principle 3 53
- Stand-alone AI 3 44
- Standardization 8 15
- Standardization bodies of the Member States 9 5
- Standardization institutes, CEN 9 2
- Standardization mandate 9 2 f.
- Standard processing, supporting function 10 14
- Standard setting 9 1
- Standards organizations 8 15
- Start of validity, staggered validity 3 69
- Start-ups 5 28
 - cooperation 8 16
- State of the art 7 85, 11 72
- Statistical approaches 2 9
- Strategy, compliance with copyright law 11 48
- Strong AI 2 21
- Subsequent biometric remote identification
 - biometric real-time remote identification 7 49 ff.
 - judicial reservation 7 52
 - prosecution 7 53 ff.
- Substantial modification 7 74 ff., 9 24
- Superintelligence 1 15, 2 22
- Supervised learning, training data 2 36
- Supervisory authority 7 112 f.
- Supervisory system 8 2, 13 1
 - EU Commission 13 4
 - national competent authorities 13 3
- Systemic risk 11 23
 - effectiveness 5 46
 - high impact capabilities 5 47
- Tasks of the AI Office, GPAI models 13 12
- Technical documentation 11 33
 - accountability 11 34
- Technical documents, creation 7 58
- Technical negotiations 3 25
- Technology-neutral regulation 3 47, 5 1
 - intended purpose 6 2
 - purpose of the AI system 5 31 f.
- Temporal scope of application 3 69
- Test
 - in real world conditions 12 16
 - protective measures 12 16
- Testing in real world conditions 12 16, 19, 24
 - human oversight 12 18
 - market surveillance authority 12 20
 - outside AI regulatory sandboxes 12 17
 - revocation 12 23
 - serious incident 12 21 f.
- Time of the first interaction 5 43
- Tort law 15 9
 - breach of duty 15 10
- Training, employees 11 19
- Training data 2 36, 40, 6 11
 - recommendation services 2 37
 - traffic analysis 2 37
 - validation and test data 6 12
- Training data sets, transparency 1 25
- Training of the AI model, summary 11 49, 52, 54 ff.
- Transparency 3 29 f.
- Transparency obligations
 - chatbots 10 3 f.
 - competitions 10 21
 - compliance by design approach 10 1
 - deepfakes 10 5, 7
 - deployer 10 13
 - emotion recognition system 10 15 f.
 - exceptions 10 2, 19
 - GPAI 10 7
 - implementation 10 20
 - matters of public interest 10 18
 - right to freedom of art and science 10 17
 - right to freedom of expression 10 17
 - systems for biometric categorization 10 15 f.
 - texts of public interest 10 13
 - time 10 20
- Transparency risk 3 45, 5 42, 44
 - accessibility 5 43
- Trilogue 3 12, 14 ff., 21, 24, 5 46, 6 17, 7 48, 9 1
 - complications 3 16
 - compromise 3 23
 - council 3 13
 - EU Commission 3 13
 - EU Parliament 3 13, 22, 5 35
 - handshake deal 3 23
 - marathon session 3 23
- Trust 3 26
- Trustworthy AI 1 9
- Turing test, imitation game 2 1
- Unacceptable risk 5 3
- Union safeguard clause procedure 13 44

Index

- Union-wide cooperation of notified bodies
8 22
- Universal technology 1 1
- Unsupervised/partially supervised learning
2 38
- Usage-independent licensing, advantage 11 17
- Value chain 7 57 ff., 80 ff.
 - right to information 7 83 ff.
- Video games 5 45
- Weak AI 2 20