statworx® AI HUB | FRANKFURT RHEIN-MAIN

WHITEPAPER   WITH 30+ EXPERT QUOTES

AI Trends Report 2024

Content

HELLO WORLD

Intro

Welcome to the AI Trends Report 2024 by statworx, a leading AI consulting and development company based in Frankfurt, and the AI Hub Frankfurt, the AI network of the Rhine-Main region. The year 2024 marks a period of fundamental change and exciting innovation in the world of artificial intelligence, as AI is now increasingly being used in real-world applications. The coming months therefore represent a critical milestone in AI development. We are at a turning point where AI is no longer just a promising future technology, but an actual reality for companies and the everyday lives of millions of people. We are experiencing this first-hand. This report therefore provides an overview of the major trends that we expect to see in 2024.

To do this, we first need to clarify what we mean by a trend. A trend is not a fashion that changes in cycles without creating anything fundamentally new, nor is it a hype that spreads primarily as a media phenomenon via buzzwords. Trends are phenomena of change with a "tipping point" at which a change on a small scale or in a niche becomes a major upheaval in the mainstream. This change takes place on several levels and in several areas. A trend gives rise to new business models, consumption patterns or ways of working. In other words, a trend fundamentally changes the status quo. If you want to benefit from a trend, you must therefore have the knowledge and resources to exploit it to your own advantage before the tipping point.

All of the report's content is based on comprehensive research, industry-specific knowledge and input from experts. Each trend is highlighted in a way that provides insight into the future of AI and helps companies make informed decisions and successfully prepare for upcoming challenges and opportunities. At the same time, we would like to point out that trend forecasts inevitably operate in a speculative space. For some trends, we are very certain that they will occur in one way or another, while others we have deliberately formulated in an offensive and daring manner.

12%

of German companies use artificial intelligence (AI).

Large companies with 250 or more employees (35%) use AI significantly more frequently than medium-sized (16%) and small companies (10%).*

*Federal Statistical Office of Germany: Press release no. 453

WHAT IS IT ABOUT?

Management Summary

Our report presents twelve dynamic trends that are unfolding in three key areas:

Culture & Development
Data & Technology
Transparency & Control

These trends reflect the rapidly changing landscape of AI and offer a deep insight into the upcoming changes that will shape businesses and society as a whole.

This report is not only an inventory of current developments, but also an indispensable tool for companies, decision-makers and innovators to understand, prepare for and benefit from the upcoming changes. Our goal is to give readers a strategic advantage by discussing the impact of trends on business, society and technology. For executives, technology experts and anyone who wants to be at the forefront, this report offers valuable insights and new food for thought.

TREND REVIEW

Review 2023

Last year, we examined trends and expected developments in the field of artificial intelligence and made some predictions. How close were our predictions to reality?

1 The competition for the best (and biggest) language model continues.

The race for the LLM crown not only continued unabated in 2023, but also gained significant momentum. Google's PaLM2, OpenAI's GPT4, Anthropic's Claude and, most recently, Google's latest LLM family Gemini: the list of potential successors to the throne of GPT-3 is long, even if OpenAI still seems to be sitting comfortably, despite internal turmoil.

Score   ●●●●●

2 Open-source models are increasingly competing with their role models.

2023 was also a big year for open-source models. A few weeks after the launch of ChatGPT, open-source projects were already being announced as alternatives. Less than a year later, there are numerous open-source chat models and interfaces that promise similar performance and experience to ChatGPT - an impressive achievement.

Score   ●●●●○

3 Diffusion models also question the status quo beyond image generation.

Since the breakthrough of diffusion models in image generation, their suitability has also been tested for other modalities - so far with moderate success. Both text and music are largely sequential media and diffusion models have so far proven to be less than ideal. However, research is continuing, and diffusion models have already achieved initial success in the generation of videos in particular.

Score   ●●●○○

TREND REVIEW

4 The Transformer emancipates itself and achieves true multimodality.

Transformers have actually been used for some time outside of text modeling, for example in object recognition (vision transformer) and time series prediction (temporal fusion transformer). However, not much has changed in this respect in 2023. These applications outside of text have existed for some time and have not experienced any breakthroughs in the past year. Nonetheless, multimodality for transformers continues to be researched and further developed – but a significant breakthrough is still a long way off.

Score ●●●○○

5 AI regulation is coming – and not just in the European Union.

The trilogue phase of the months-long EU negotiations on the AI Act was concluded at the beginning of December last year. The treaty still has to be ratified by the EU Parliament, but this is a formality. So the fact is: the AI Act is coming. Other authorities have also spoken out in favor of AI regulation: the Biden administration in the USA, for example, issued an executive order on the regulation of AI. The Council of Europe is also working on an AI convention and the UN General Secretariat convened an Advisory Body on AI in October 2023 to develop recommendations for global AI regulation.

Score ●●●●●

TOTAL SCORE

4 /5 POINTS

CULTURE & DEVELOPMENT

PART 1

NWOW: AI Edition

TREND 1

AI expertise is becoming an indispensable pillar of corporate development

TREND 2

AI paves the way for the 4-day workweek

Augmenting everything

TREND 3

AGI draws closer: Omnimodal models master the sensory world

TREND 4

An AI blockbuster heralds a new era in media production

DATA & TECHNOLOGY

It's all about resources

TREND 5

Resource scarcity as a catalyst: A challenger technology will attack NVIDIA's core business

TREND 6

Quality instead of quantity: innovations instead of more data are needed to make AI models better

Next Gen of AI superpowers

TREND 7

AI integrators like Microsoft, Databricks and Salesforce will be the big beneficiaries because they bring AI to the end user

TREND 8

Free AI superpower: An open-source model outperforms the latest GPT version

TRANSPARENCY & CONTROL

Transparency + AI Act = Money

TREND 9

AI transparency becomes a flagship: after OpenAI, a European AI start-up becomes the "next big thing"

TREND 10

AI Act as an opportunity: Safe AI "Made in Europe" becomes a seal of quality for investors

How to gain control

TREND 11

AI agents that interact with each other are changing the rules of our economy

TREND 12

Values and performance in harmony: Alignment gets the most out of foundation models

TRENDS – PART 1:

Culture & Development

4-day workweek, omnimodality and AGI: AI is transforming everything from the world of work to media production.

NWOW: AI Edition

TREND 1

AI expertise is becoming an indispensable pillar of corporate development.

Successful companies are integrating AI skills into their education and training programs, hiring data culture specialists and building central AI teams that combine development and application.

The battle for talent is in full swing. Companies are desperately looking for AI expertise. One thing is clear: people play the most important role in the AI transformation. The same applies to large corporations and the hottest AI start-ups: companies are nothing without their tech and industry experts. Companies that want to remain successful in 2024 will draw three key conclusions from this: The training and development of their own workforce, the development of a strong data culture and the establishment of interdisciplinary AI teams are the success factors. What does that mean in concrete terms?

1. The combination of tech and industry expertise is becoming increasingly important. Recruiting and retaining experts at the interfaces of AI and finance, law, healthcare, etc., gives companies a head start in highly competitive industries. This interface competence can be trained in employees who already have expertise in one of the two areas.

2. When AI moves from development to production, interdisciplinary, collaborative teams are needed. An AI algorithm only creates value for the company if development, maintenance, analysis and governance work together. Transformative solutions depend more on a strong data culture than on individual programming skills.

3. Companies that want to free up their AI teams centralize key tasks such as infrastructure, resource allocation and ethical guidelines. They also integrate, modularize and scale their internal systems.

Behind all of this is the fundamental insight that a data-driven organization needs people to be successful. Companies such as Roche and Merck are focusing on their employees and strengthening their data culture by establishing corresponding management functions within the company. Stefanie Babka, Global Head of Data Culture at Merck, says: "Culture is what happens when no one is looking - and that makes up 80% of a successful AI project." People decide through their everyday behavior whether an AI project will be successful or not. That's why, in addition to the right skillset, the right mindset and behaviors of the users are essential. This also means that companies need to empower their employees to do things independently. To

TRENDS – PART 1

achieve this, the data culture must be embedded in the business strategy in order to consciously create new patterns of action. "Only if everyone in the company understands the current maturity level of their digital and data culture can they take the most promising path to achieving their corporate strategy," says Nadja Schäfer, Global Lead Data Culture at Roche Diagnostics.

Strategic planning of the specializations and expertise required within the company helps here. Once this is known, tailor-made training programs can be rolled out to fill the relevant functions and positions, for example through internal upskilling. The examples below show what upskilling can look like at a first basic level.

Video production for individual e-learning: Well-produced video, audio and text content is an ideal basis for motivating, self-directed learning. E-learning materials can be produced in various formats, e.g. videos, podcasts and collaborative content. Materials are produced to the highest quality standards and with experienced partners.

Data Escape Rooms are an engaging and highly scalable experience where you learn about data and those who work with it through play. The fully digital, browser-based game environment with embedded story is part of a big data culture initiative and focuses on unique experiences and fun rather than formal learning. Groups escape together and arrive at an online party location filled with more icebreakers and internal links to learning resources and guides.


Exemplary replica of a Data Escape Room that statworx developed with Merck.

TRENDS – PART 1

Can you prompt this?

In the "Can you prompt this?" app, developed with Merck, users are asked to "recreate" an existing image using an AI prompt. The app thus enables an easy and playful introduction to AI-based image generation. Gamification approaches like this have been proven to improve user motivation and learning success. Companies that make it easier for their employees to get started in this way improve the chances of success for their digital transformation.

Zoom in!
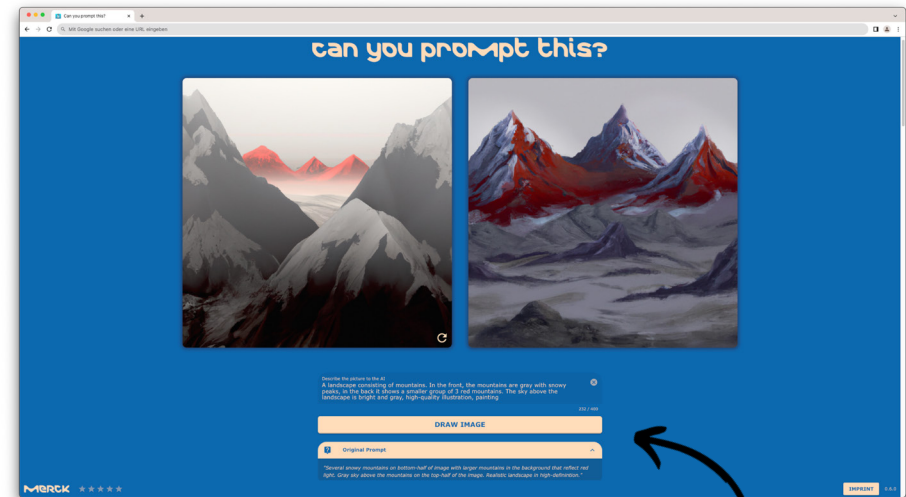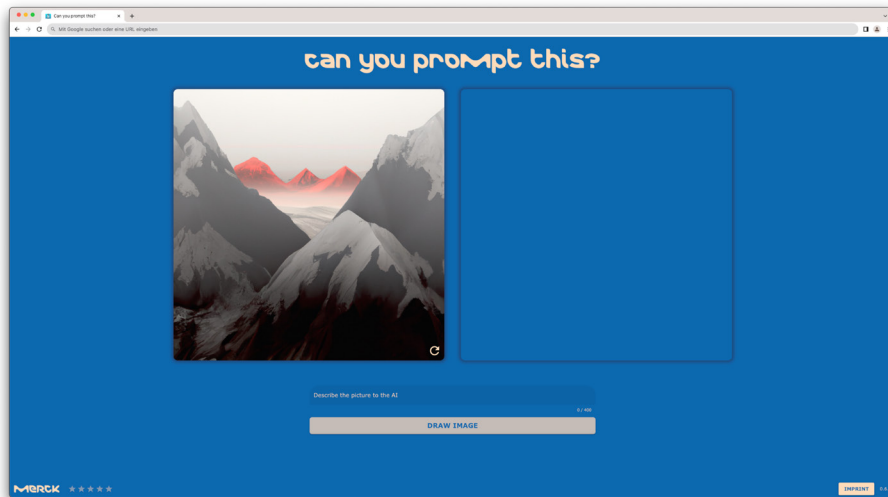
AI TRENDS REPORT 2024

Expert Quote
Trend #1

"Data culture can't be bought or dictated. You need to win the head, the heart and the herd. We want our employees to consciously create, use and share data and give them access to data, analytics and AI together with the knowledge and the mindset to run the business on data."

Stefanie Babka
Global Head of Data Culture, Merck

Expert Quote

Trend #1

"A data culture, which is anchored in the corporate strategy, is the foundation for shared values and behaviors with respect to data, analytics and AI and therefore a prerequisite for a digital business."

Nadja Schäfer

Global Lead Data Culture & Data Literacy, Roche Diagnostics Information Solutions

AI TRENDS
REPORT
2024

Expert Quote
Trend #1

"Most companies have understood that great AI solutions run on good data and not only based on the skills of a small number of data science wizards you hire. The only sustainable path towards the necessary data quality is building up a data culture, where we establish patterns of continuous and widespread engagement, where everyone contributes to this transformation."

David Schlepps

**Head of AI Academy,
statworx**

AI TRENDS REPORT 2024

Expert Quote

Trend #1

"The use of AI is becoming a decisive factor for the competitiveness of companies. In order to build up the necessary AI skills, companies in Hessen can draw on an established network, in particular: AI Center hessian.AI, AI Innovation Lab, ZUKIPRO, KompAKI, Mittelstand-Digital Zentrum Darmstadt, House of Digital Transformation and AI Quality & Testing Hub."

Prof. Dr. Kristina Sinemus

Hessian Digital Minister

Expert Quote
Trend #1

"AI expertise will become indispensable for companies. By building AI expertise, companies are compelled to pay special attention to the needs of their employees regarding the psychology of AI acceptance. Doing so will result in a competitive advantage in mastering the organizational transformation into the AI age."

Dr. Elisa Konya-Baumbach

**Co-Founder, humest;
Lecturer & Researcher, Bern
University of Applied Sciences**

AI
TRENDS
REPORT
2024

Expert Quote

Trend #1

"AI competence, like IT competence, will play a similarly important role in the future. Without a basic understanding, it will continue to be difficult to recognize the opportunities and risks of AI systems and to use such systems correctly."

Dr. Tilo Sperling

Head of AI-Projects Business Applications, Geberit

AI TRENDS
REPORT
2024

Expert Quote
Trend #1

"The ability for continuous learning and the willingness to adapt to new technologies and developments are crucial for anyone who wants to be successful in a rapidly changing world and work environment. Successful companies actively promote their employees to become innovators by investing in AI skills."

Marie Günther

Head of HR, Bosch Service Solutions GmbH

AI TRENDS REPORT 2024

Expert Quote
Trend #1

"Research about AI and learning teaches us not to isolate social from technical aspects. Everyone says we need more diverse experts in AI, but we need the right company culture for that in the first place. We need more value-driven companies that de-bias the workplace to become an attractive employer for a diverse workforce of international AI experts."

Dana Kube

Researcher, Educational Technologies, DIPF Leibniz Institute for Research and Information in Education

TRENDS – PART 1

TREND 2

AI paves the way for the 4-day workweek.

AI is finding its way into more and more standard software and business processes. The integration of GenAI into Office programs in particular is turning millions of people into daily AI users. Due to the AI productivity boost, at least one German company introduces the 4-day working week.

Around 80 percent of Fortune 500 companies use Microsoft Office365 - and many of their employees will be working with AI in the future in the form of MS Copilot. This could generate an additional 14 billion US dollars in revenue for Microsoft each year - even if only ten percent of Office users use Copilot. What's more, AI is finding its way into more and more standard software, optimizing numerous processes. Generative AI in standard software is making possible what some economists believe is (still) standing in the way of the 4-day working week: Increasing productivity across the board so that we, as a society, can afford an extra day off.

It has long been clear that studies on the effect of the 4-day week have come to similar, consistently positive results - for employees and employers. This is why the four-day week has been a hot topic of discussion, and not just since the ChatGPT hype last year. In some sectors, such as the steel industry, it has long been demanded for other reasons. A study from the UK has already delivered promising results: 61 companies there tested it for six months. The result: 56 companies want to keep them until further notice. Their employees are more balanced, healthier and productivity has even increased. The pilot project is also starting in Germany this year. More than 50

companies will test the four-day week. IG Metall boss Jörg Hofmann and SPD chairwoman Saskia Esken are also in favor of a shorter working week. This confirms what around 81% of full-time employees also want according to a study by the Hans Böckler Foundation.

But how do we manage to continue producing economic growth with fewer working hours? Artificial intelligence is fundamental to the answer. Not all sectors are benefiting from AI yet, but this will change in 2024 when the technology is integrated into numerous business processes and standard software. Microsoft's Copilot already hints at the massive efficiency gains. The changes will affect the countless administrative and organizational tasks that take up time in day-to-day work in all industries. AI is able to take over these tasks, for example by planning and organizing calendars and structuring, transcribing and summarizing meetings. AI also makes it easier to prioritize tasks and develop projects. The additional boost provided by generative AI is finally opening the door to reducing working hours on a large scale.

4-DAY-WORKWEEK

5-DAY-WORKWEEK

TRENDS – PART 1

So, we can conclude: AI offers potential benefits and optimizations in all industries and almost all workflows. But what does this look like in practice? Which AI solutions can companies use to gain so much efficiency and productivity that a 4-day week can be worthwhile for them?

We take a look at the financial sector and use selected examples to show what AI can achieve there (among other things):

Fraud detection: Machine learning models already play a major role in fraud detection in finance departments by identifying fraudulent activities such as credit card fraud or money laundering in real time. Compared to rule-based systems, AI algorithms outperform traditional methods by up to 20% because they learn from previous fraud cases and recognize new patterns. They work adaptively, rather than just reactionary.

Risk management: Financial algorithms can make accurate predictions about risks and potential outcomes of transactions such as loans and investments. This enables financial institutions to make more informed decisions. A specialized LLM with good judgment, such as GPT-4, can efficiently evaluate project plans, investments, and industries, taking into account many contextual variables - thus supporting the decision for the most sensible action.

Customer service: Chatbots that automatically answer questions about products and help with software problems enable banks to save costs and offer a time-independent service. The chatbots work around the clock and improve the efficiency of financial institutions.
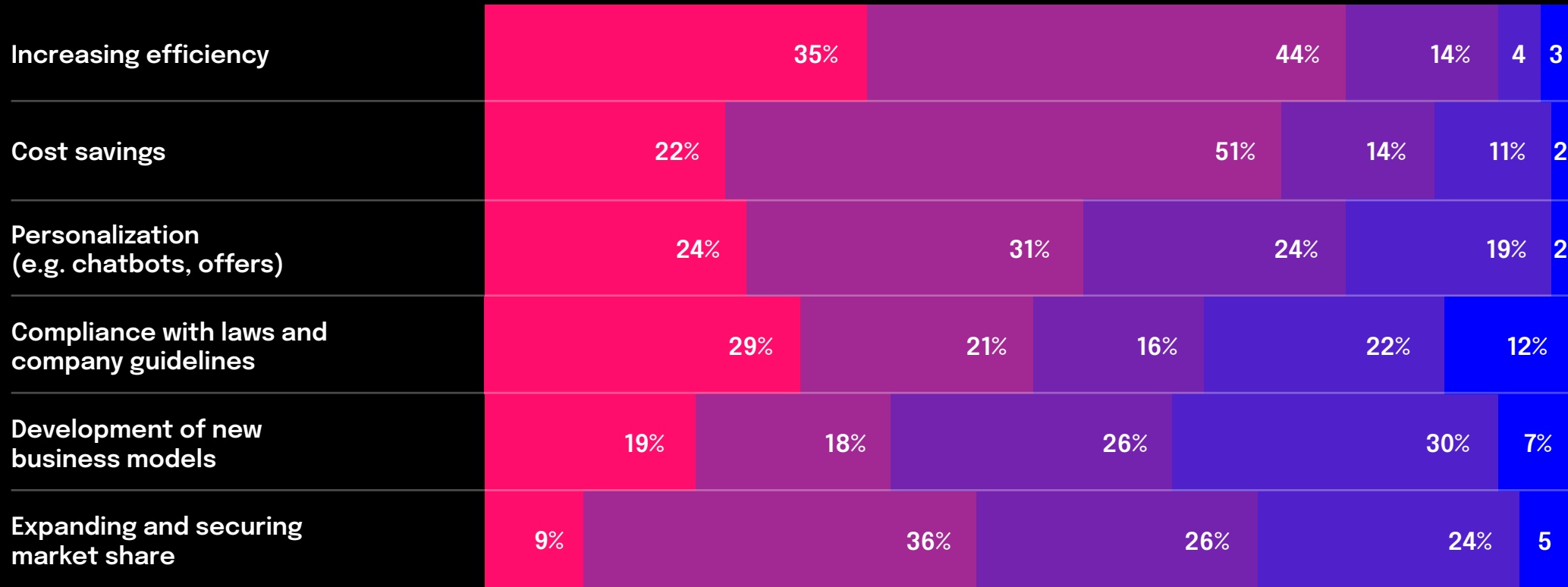
Compliance: AI can play a central role in ensuring compliance in finance, for example with expense reports or other expenses. Appropriately trained systems find duplicates in large amounts of data and evaluate potentially fraudulent data: For example, funds that exceed an allowable amount or costs that do not comply with company guidelines.

Reinsurance: Computer vision systems can make an overall loss estimate based on damage patterns, for example to houses after a natural disaster. This enables reinsurers to know the amount of insurance they need to hold in reserve - as soon as the first satellite images of an affected area are received.

TRENDS – PART 1

KI in Financial Services

	Very important	Rather important	Neutral	Rather unimportant	Unimportant
Increasing efficiency	35%	44%	14%	4	3
Cost savings	22%	51%	14%	11%	2
Personalization (e.g. chatbots, offers)	24%	31%	24%	19%	2
Compliance with laws and company guidelines	29%	21%	16%	22%	12%
Development of new business models	19%	18%	26%	30%	7%
Expanding and securing market share	9%	36%	26%	24%	5

PwC study „How mature is AI adaption in financial services"

For companies in the financial sector, the potential of AI to increase efficiency and reduce costs is of particular interest. But there are also sensible and useful use cases in all other areas such as compliance and personalization.

● Very important ● Rather important ● Neutral ● Rather unimportant ● Unimportant

AI TRENDS REPORT 2024

Expert Quote
Trend #2

"GenAI will continue to drive automatization in numerous fields. This will be the new benchmark for standard processes across all sectors. While this might have the positive impact of reduced workig time, we must ensure GenAI is used responsibly, especially in sensitive and client-facing areas."

Dr. Jean Enno Charton

Director Digital Ethics & Bioethics, Merck

AI TRENDS REPORT 2024

Expert Quote

Trend #2

"The rise of AI in our daily lives is not just trans-
forming the way we work; it's redefining the very
structure of our workweek."

Sebastian Heinz

**CEO & Founder, statworx & AI
Hub Frankfurt Rhein-Main**

AI TRENDS REPORT 2024

Expert Quote

Trend #2

"Although a 4-day working week sounds tempting, our clients are currently facing more concrete challenges regarding available manpower, such as the outflow of knowledge due to an ageing workforce or the noticeable shortage of skilled workers. AI provides crucial added value here - for example through improved knowledge management and automation of routine but time-consuming tasks. Perhaps, as a positive side effect, AI might even pave the way for the 4-day week."

Marcel Plaschke

Head of Strategy, Sales & Marketing, statworx
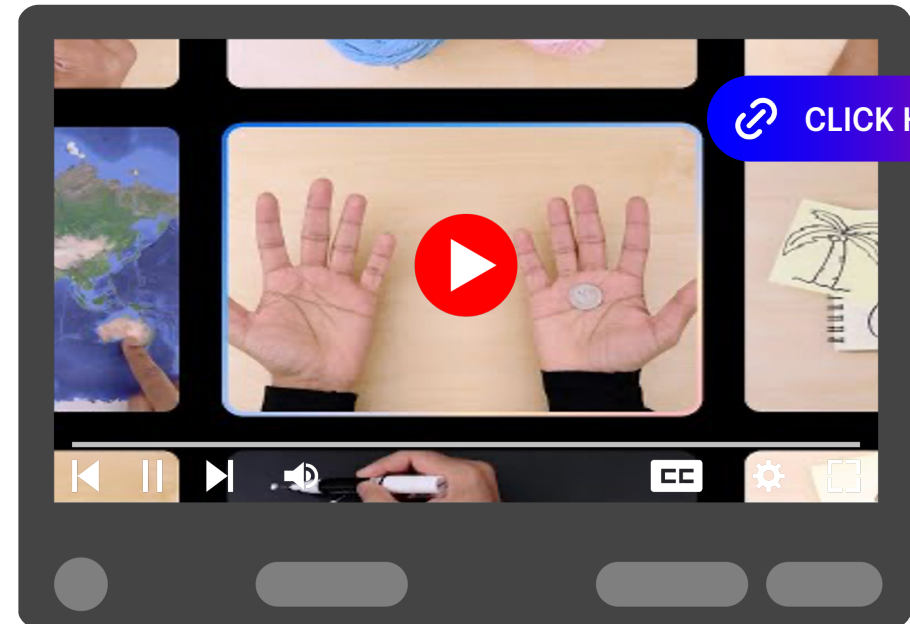
TRENDS – PART 1

Augmenting everything

TREND 3

AGI draws closer: Omnimodal models master the sensory world.

Omnimodal models process almost all inputs and data in real time and via voice interface as well as or better than human senses. This makes software an extension of people.

CLICK HERE!

GPT4-Vision and Google's recently unveiled Gemini are already proving that multimodality is the new benchmark. Flagship models of the major development labs are being compared to their performance. The emergence of these models, which can process both text and images, is already pushing the boundaries of what is possible - and this is just the beginning. In the future, omnimodal AI could process all five human sensory organs as input: Sight, hearing, touch, smell, and taste. By converting these inputs into data points and processing and interpreting the data from each modality, an omnimodal AI could understand and interact with the world in the same way as a human being.

Gemini's capabilities are already fascinating, as the video impressively shows.

TRENDS – PART 1

Although AI has more precise sensors in direct comparison with humans, human sensory perception is still clearly superior in one discipline: the unique combination of sensory impressions and their processing. This enables us to combine sight and hearing, smell and touch - in real time. This could change in 2024 with AI models that are able to put every data point, no matter how coded, into context.

When these models become truly omnimodal, i.e. capable of processing any input such as text, images, voice, music or tabular data, they will be a massive step closer to „general intelligence" (AGI). They will become so flexible in their use that they will outshine humans in most tasks.

The way we interact with machines and robots will also be fundamentally changed by AI-supported gesture and voice control. Tools such as Adobe's Firefly - controlled by prompts rather than targeted clicks - Apple's Vision-Pro - controlled by gestures - and Amazon's Alexa - controlled by voice - are already breaking down the boundaries of human-machine interaction. The naturalness with which we interact with people through speech, gestures and facial expressions will soon also apply to software. This will make it increasingly difficult for us to recognize whether our digital counterpart is a human or a machine. The boundary between software as a tool and as an extension of the human body is becoming increasingly blurred.

This has decisive economic consequences: In the hunt for new data sources (see trend 5) to improve the training of their base models, omnimodality is becoming an insurmountable advantage for hyperscalers like Google and Microsoft. They can gain insights from training with certain types of data and transfer them to other modalities. This creates entirely new, emergent knowledge about previously separate data domains and ultimately the world as a whole. Omnimodality is therefore an important step on the path to AGI - also because it gradually familiarizes users with the idea of omnipotent AI.
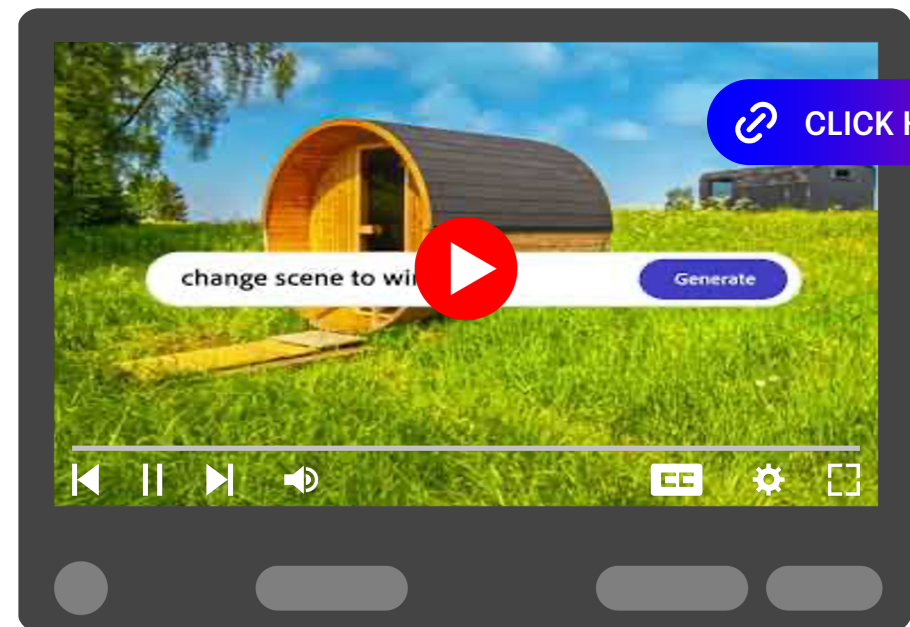
Firefly not only makes designers and illustrators much faster in their work, but also opens up completely new possibilities for them.

AI TRENDS
REPORT
2024

Expert Quote

Trend #3

"Multimodal models trained on more than plain text have shown superior abilities to reason and understand the world. We are excited to see what omnimodal models will do."

Dr. Ingo Marquart

NLP Subject Matter Lead, statworx

TRENDS – PART 1

TREND 4

An AI blockbuster heralds a new era in media production.

Following the success of Stable Diffusion and Co, GenAI applications for image processing, video production, music composition, software development and speech recognition are driving groundbreaking advances in the creative media landscape. Heinz Ketchup and Coca-Cola are already on trend with their AI-inspired commercials. In Spain, an AI-generated influencer is already earning up to €10,000 a month – and the agency behind it is already planning more digital models.

Research into human cognition defines three forms of creativity: combinatorial, exploratory and transformational.

AI is already good at the first two forms: it combines existing information and navigates through conceptual spaces pre-structured by humans. However, it does not (yet) seem to have the ability to have a transformational effect. It is bound by the instructions of its users. AI would only be transformative in the sense that something emergent is created when it does things that humans have not instructed it to do. Whether this is desirable is another question.

But perhaps we simply need to redefine creativity because of AI. Basically, AI is creating a new creative role. It can inspire people to do transformative things that they would not have been able to do without AI. Tools such as Midjourney, Aiva Technologies and Pika1.0 are already standard tools for creatives. In the future, artists will focus their skills less on the craft of their art and more on tools, data and prompts for AI-supported co-creation. The biggest risk here is regression to mediocrity. AI is being trained with the entire internet, but increasingly with AI-generated content itself. This reduces the creative output of the models at the expense of a "global flavor", a boring mediocrity. Here again, it is up to people to counteract this with contrary, subversive interventions.

We used to take for granted that food, clothing and medicines were handcrafted products made by experts. Then people invented machines that automated production – and after a relatively short time, this became the new normal. In 2024, AI-supported creativity will be the new normal, at least for parts of the creative process. The mass medium of film will make the first major contribution to this – with a movie that is "played" entirely by AI-generated actors. Curiosity alone will drive people to the cinemas.

TRENDS – PART 1

Text-to-image AI conquers advertising:

Heinz shows what the AI thinks ketchup looks like in a particularly impressive way.

CLICK HERE!
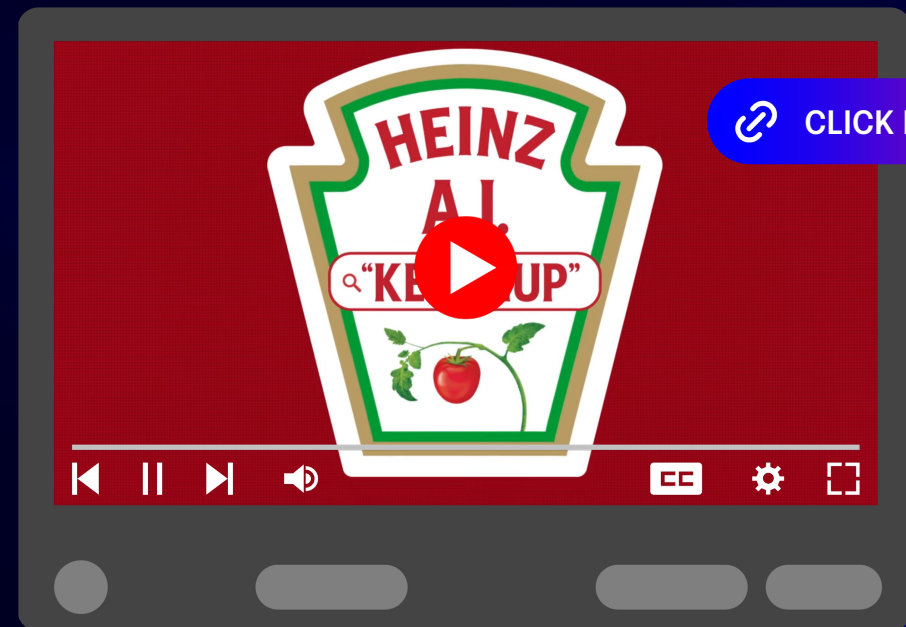
AI TRENDS REPORT 2024

Expert Quote

Trend #4

"We are already using GenAI to create text and images today. In 2024, we will increasingly use multimodal GenAI models to create and process our content more efficiently."

John Vicente

Sr. Machine Learning Engineer, ProSiebenSat.1 Media SE

AI
TRENDS
REPORT
2024

Expert Quote
Trend #4

"Generative text AI is fundamentally changing the work of content teams and newsrooms. Many text production tasks can be partially automated. The blank sheet of paper no longer exists. I call this principle "Direct to Draft": as soon as you have an idea for a topic, you have the first draft in your hand."

Matthias Bastian

Online-Journalist, THE DECODER / CEO, Deep Content

Expert Quote

Trend #4

"Those who integrate AI smartly will have a competitive advantage. There will be leaps in productivity in the areas of ideation, publishing and visuals. However, there will also be a lot of "low" and fake content (postings, messaging), so building trust will become even more important for brands. Social media tasks are shifting towards strategy, management and controlling."

Nemo Tronnier

Founder & CEO, Social DNA

AI
TRENDS
REPORT
2024

Expert Quote
Trend #4

"Gen-AIs are constantly evolving, and new tools for specialized applications are published daily. The hype is huge, and the market confusing, with FOMO among companies being strong. AI systems will have a far-reaching impact on our work and efficiency. Take the time to look in-depth behind hyped presentations, as successful implementations require time and a pinch of change management."

Jacques Alomo

**Partner & Head of Innovation,
youknow GmbH**

TRENDS – PART 2:

Data & Technology

In 2024, everything will revolve around data quality, open-source models and access to processors. The operators of standard software such as Microsoft and SAP will benefit greatly because they occupy the interface to end users.

2024 – 02

TRENDS – PART 2

It's all about resources

TREND 5

Resource scarcity as a catalyst: A challenger technology will attack NVIDIA's core business.

Despite the OpenAI hype, NVIDIA was the big AI winner of 2023, out-performing hyper-scalers such as Microsoft and Alphabet (40 to 50%), integrators such as Salesforce and SAP (40 to 80%) and enablers such as C3 AI and Palantir Technologies (160 to 180%) with an investment increase of 230%. The reason: with its GPU chips, NVIDIA has equipped the tech companies in the gold rush with the metaphorical shovels at the right moment - to their own advantage.

Playing into NVIDIA's hands is the fact that the graphics processing units (GPUs) needed to train advanced AI models have become a scarce commodity due to the explosion of interest in AI technology. In addition, NVIDIA dominates the market for GPUs with an astonishing 80% market share and thus plays a key role in determining supply.

As early as 2023, the lack of available GPU chips posed problems for companies that wanted to develop AI models and use them on their own hardware.

The majority of AI training processes take place on the cloud platforms of providers such as Microsoft, Amazon and Google. One of the advantages of this for companies is that they do not have to set up their own data centers in order to use the required hardware. However, as the demand for GPU chips is increasing faster than cloud providers can install new graphics cards in their data centers, many companies are currently facing long waiting times - in extreme cases, up to a year. And even those who already have access to GPUs are not satisfied in their chip hunger: state-of-the-art models are being trained on up to 25,000 GPUs simultaneously.

While large companies can avoid long waiting times, start-ups and research labs are left holding the bag and have to wait until they are offered the resources they need to develop AI. This has already brought the competition onto the scene: traditional rivals such as AMD and Intel as well as new corporations and young blood in the form of innovative start-ups are preparing to break NVIDIA's dominance in 2024. Sam Altman, CEO of OpenAI, also sought funding for a new hardware manufacturer last year in order to challenge NVIDIA's market position.

This will not be an easy task. However, the GPU market is ripe for up-and-coming technology companies to challenge NVIDIA for the position of market leader and drive innovation through competition.

Expert Quote

Trend #5

"HP workstations with NVIDIA GPUs are already being used very successfully in the field of AI and data science. For 2024, both companies are intensifying their partnership and supporting AI developers with dedicated workstation solutions with deeper integration of NVIDIA's enterprise software. Because AI specialists simply need appropriately optimized computers."

Friedrich Stahl

Business Lead AI Central Europe, HP Inc.

AI
TRENDS REPORT 2024

Expert Quote
Trend #5

"Contrary to prevailing opinion, there isn't really a shortage of AI accelerators, counting NVIDIA, Intel, and AMD. The real issue is client funding as cloud providers are forced to offer available capacities on long-term contracts. This might change in 18-24 months once current deployments have depreciated sufficiently. Until then clients need to budget for longer commitments."

Norman Behrend

Chief Customer Officer, Genesis Cloud

AI TRENDS REPORT 2024

Expert Quote

Trend #5

"Although NVIDIA will continue to serve as the central enabler technology for AI in 2024, competition will become increasingly intense. This is evidenced by dedicated AI hardware such as Cerebras and Google's TPUs, new frameworks like Apple MLX and Modular, as well as innovative model architectures like Mamba and RWKV."

Fabian Müller

COO, statworx

TRENDS – PART 2

TREND 6

Quality instead of quantity: innovations instead of more data are needed to make AI models better.

From mountains of data to jewels of data: Instead of accumulating pure amounts of data, innovation in the development of sophisticated model architectures and in the careful selection and preparation of high-quality data is becoming crucial. Model and superalignment - AI that makes other AI more powerful, explainable and human - will set the tone.

GPT-4 from OpenAI uses an estimated [1.7 trillion parameters](#). By comparison, GPT-2 from 2019 ran with just 1.5 billion parameters - a growth of more than ten thousand times. However, Meta's LLaMA (7 billion parameters), Microsoft's Phi-2 (2.7) and Google's Gemini Nano (1.7) go the opposite way. Even if GPT-4 is ahead in performance rankings, there are good reasons to invest in smaller LLMs.
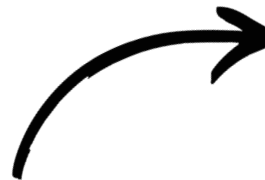
This is not a design element, but the actual ratio of the parameters used.

GPT-4   LLaMA   Phi-2   Gemini Nano   GPT-2

TRENDS – PART 2

Because size means complexity - and this costs money and energy for the required computing power. The data centers required for this are located far away and have a negative impact on the environment. There are therefore good reasons for companies to increasingly rely on models that are used on site. After all, they promise greater security and data protection, better latency times and lower prices overall. Also, the quality of LLMs cannot be scaled endlessly with their size: While the model architecture from GPT-1 to GPT-3 has hardly changed, GPT-4 uses a new approach according to insiders: several models are to be hidden under the hood, all of which are specialized in their own use cases - GPT-4 is therefore a so-called "Mixture of Experts" model.

Not only models, but also data sets are reaching their limits. 200-300 TB of data every month: this is how much the largest text corpus, CommonCrawl, adds to its approx. 6.4 petabytes of text data. These and other open source datasets are the basis for building and improving the LLMs of Microsoft, Meta, OpenAI & Co. But at some point, even they have "seen it all". The latest generation of LLMs therefore requires innovation, not more size.

Data quality is becoming the decisive factor for smaller models to compete with the big players. Mistral, a French AI start-up, has shown that with high quality training data and a few tricks in model architecture, even very small models can achieve astonishingly strong performance and outperform larger models many times over.

In order to further increase the performance level of LLMs - large and small - new data limits will emerge in 2024:

1. Private data partnerships - A large amount of unused data lies in corporate and private databases. For Grok, the in-house LLM of X, formerly Twitter, for example, securing limited access to tweets will be a key advantage. Other hyperscalers will be forced to seek partnerships to use training data safely and securely - and these partners will make them pay for it.

2. Multimodality - Although large parts of the "written internet" are already included in most LLMs, this is not the case for images and videos. With omnimodality on the rise (as seen here), intelligent methods of encoding this data will enable a new surge in training data

So, it is becoming apparent: Quality over quantity. Significant performance improvements in image generation models such as DALL-E and Midjourney are due to better-labeled training images, not simply larger amounts of data for training. This trend will therefore continue in 2024:

Data quality is key.

AI TRENDS REPORT 2024

Expert Quote
Trend #6

"Data isn't merely a component of the AI landscape; having data in the right quality is essential. Solving the first-mile problem of ensuring data quality and understanding the last-mile problem, i.e. involving your employees in data and AI projects, are pivotal for success."

Walid Mehanna
Chief Data & AI Officer, Merck

AI TRENDS REPORT 2024

Expert Quote

Trend #6

"Media can serve as a constructive counterbalance to the flood of content generated by generative AI. When research is organized and accessible in a modular manner, AI can draw upon it. This is a challenge and requires innovation, but it is worth it: Because verified information, researched context, and value-based classification would be the best foundation for good alignment."

Johannes Schmid-Johannsen

**AI Coordinator,
Südwestrundfunk**

Picture: SWR/Patricia Neligan

AI TRENDS REPORT 2024

Expert Quote
Trend #6

"Firstly, how generalist or specific is my use case, and secondly, how much data quality do I need or want to cover my use case? Particularly in scenarios involving diverse user interactions and a wide array of requests, there is merit in training algorithms on imperfections."

Stephan Emmer

Senior MLOps Engineer,
statworx

TRENDS – PART 2

# Next Gen of AI Superpowers

AI integrators like Microsoft, Databricks and Salesforce will be the big beneficiaries because they bring AI to the end user.

2024 will be the year of the integrators: new AI start-ups with spectacular technologies are popping up left and right, but the biggest question for companies is: "Can I integrate this tool into Microsoft / Databricks / Salesforce?" These companies dominate the market because they sit at the interface with end users.

The AI value chain offers varying degrees of profitability. Business models that are located between customers and providers of models are particularly solid. Companies that only build an interaction layer on top of existing models will only remain relevant as long as the usability of the underlying models is still lower. As soon as Microsoft or SAP integrate the services docked onto them, they are likely to become redundant.

Microsoft has already made its mark with 365 Copilot: Even if it is not entirely convincing at first, it sets the standard for all other solutions. These must now offer significantly more benefits with AI than Copilot for companies to accept the additional costs for seamless integration. This also means that

it is only a matter of time before every person with an Office365 license will be using generative AI. This will affect millions of people worldwide. Some will be quicker to take advantage of the possibilities, others slower. In the long term, however, Copilot will be so powerful that no one will be able to avoid it. The video impressively shows why:

CLICK HERE!
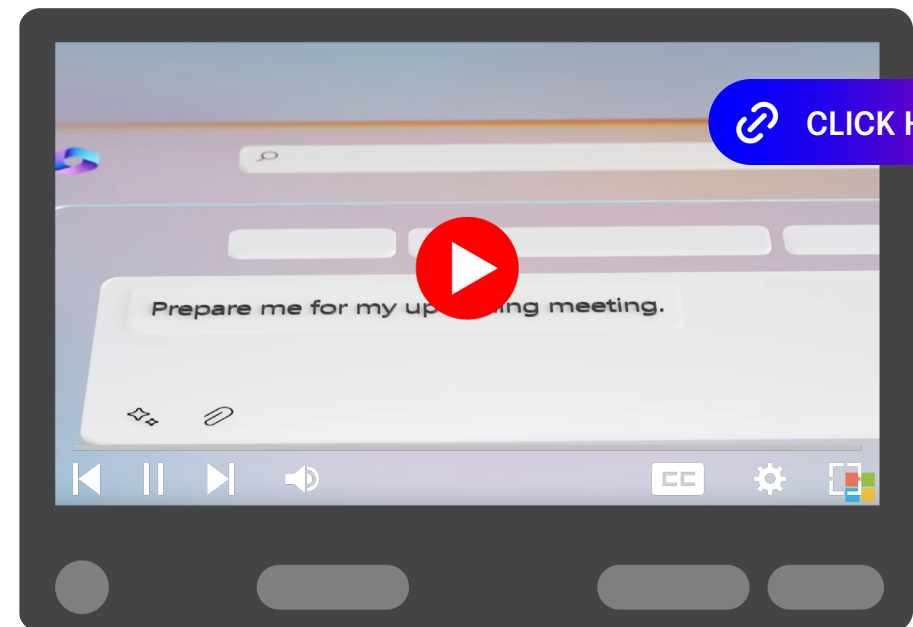
TRENDS – PART 2

Microsoft investors can rejoice. Despite the dynamic nature of the AI eco-system, the market is closely intertwined and dominated by a small number of companies. No one can bypass the integrators. Whether it's Microsoft embedding AI tools from hip start-ups into its Microsoft365 suite or SAP de-veloping trustworthy APIs: Integration is the be-all and end-all. And integra-tors are financially well equipped to lead the battle for market share. They benefit from their position as IT gatekeepers in companies. The lock-in ef-fect ensures that their customers cannot easily replace them with other providers. This gives them such a strong negotiating position that they will dominate the AI market in 2024.

Nevertheless, there are three lucrative niches:

1. For start-ups with special industry knowledge and established compa-nies that offer added value for customers that is difficult to replace.

2. For companies with a high level of integration capability into existing IT systems in the B2B sector.

3. For companies that redefine industries or create completely new ones with risky but potentially groundbreaking innovations.

AI TRENDS REPORT 2024

Expert Quote

Trend #7

"At Microsoft, we are committed to bringing technology and people together to realize the promises of AI responsibly. Our AI tools and technologies are designed to benefit everyone at every level in every organization, and we have made huge investments in AI because we are optimistic about what it can do to help people, industry, and society."

Horst Urlberger

Business Lead GTM Data & AI, Microsoft Germany

AI TRENDS REPORT 2024

Expert Quote

Trend #7

"In 2024, AI integrators show how they make AI accessible to end users. Their role is critical to the democratization of AI in the business world, enabling companies of all sizes to benefit from advanced AI. This development emphasizes the need for user-friendly and ethically responsible AI solutions."

Marco Di Sazio

Head of Innovation, Bankhaus Metzler

TRENDS – PART 2

TREND 8

Free AI superpower: An open-source model out-performs the latest GPT version.

Open-source software vs. closed source software is a decades-old battle that will end in favor of open source in 2024: Open-source models are becoming serious competition for the major providers of proprietary models such as OpenAI's GPT family and Google's Gemini.

While GPT-4 still outperforms the competition in every benchmark, the gaps are getting smaller and smaller. By 2023, open-source models have already proven that with a focus on innovation, data quality and targeted fine-tuning (see thesis VI), even the very small ones can keep up with the big ones - and that was just the beginning. Meta's LLaMa started a revolution of smaller LLMs in early 2023, which may seem irrelevant compared to the giants of OpenAI - but appearances are deceptive. LLaMa has shown that cutting-edge models such as GPT-4 are simply not needed for many use cases - even if they promise the best overall performance. Instead of size, LLaMa focuses on efficiency and therefore does not require particularly powerful cloud resources, but even runs on a cell phone in its smallest format. That is more than impressive.

The coup, however, was Meta's loyalty to open source, as the models of the LLaMa family were first made freely available to researchers and then to the general public. Meta has thus heralded a new movement in the AI industry - hardly a week goes by without a new model based on the LLaMa architecture conquering the leaderboards.

The latest company to cause a sensation with a LLaMa derivative is Mistral: a French AI startup that is outclassing much larger models with its in-house model, inspiring not only AI developers but also investors.

Mistral shows which way the wind is blowing in 2024: open source models will become serious competition for OpenAI and co. Your advantages at a glance:

1. Open-source promotes innovation and knowledge sharing. Through global collaboration within the open-source community, breakthroughs in research spread faster and are implemented and discussed more frequently than in the closed development settings of large AI labs. This collective effort leads to rapid improvements, bug fixes and the development of new features.

2. Open-source models offer users the flexibility to customize the models to their specific requirements. This can be beneficial in industries with unique requirements that may not be fully covered by pre-built proprietary models.

3. The AI Act strictly regulates AI models and demands transparency. Open-source models are often more transparent in how they work, allowing users to understand the underlying algorithms and methodologies. This transparency can be critical to building trust and ensuring accountability, especially in applications that are considered high-risk and whose decisions impact the lives of individuals.

Expert Quote

Trend #8

**Prof. Dr.
Christian Klein**

**Founder, UMYNO Solutions,
Professor in Marketing &
Digital Media, FOM Hochschule**

"AI solutions are indispensable for SMEs in particular. As there is typically not enough data for a proprietary model, collaboration is crucial. However, the ability to adapt is essential in order to digitally advance your own business model."

TRENDS – PART 3:

Transparency & Control

The increased use of AI decision-making systems will spark an intensified debate on algorithm transparency and data protection in 2024 - in the search for accountability. The AI Act will become a locational advantage for Europe.

TRENDS – PART 3

Transparency + AI Act = Money

TREND 9

AI transparency becomes a flagship: after OpenAI, a European AI start-up becomes the "next big thing".

Trustworthy, explainable AI models and transparent AI development open up huge profit opportunities. Sectors such as pharmaceuticals and finance already have high requirements for the traceability of AI decisions. Those who develop these solutions will benefit.

According to OpenAI, more than 80 percent of Fortune 500 companies already use ChatGPT. A McKinsey survey found that almost a quarter of C-level executives use generative AI tools for their work. The hype surrounding GenAI will therefore not stop in 2024. However, this also opens the door to major growth for other AI start-ups. According to the "German AI Startup Landscape 2023", there are more than 500 startups in Germany that belong to the AI sector - this corresponds to growth of 67% compared to 2022. What is special: AI start-ups are significantly more resilient than those in other

sectors - probably also because they receive significantly higher levels of funding. Their average funding amount is USD 14.8 million (although the median is "only" USD 5.4 million). From the perspective of founders and investors, AI is therefore already an important industry. The more money flows into this system, the more important the issue of regulation becomes for investors.

TRENDS – PART 3

The AI Act

The Artificial Intelligence Act (AI Act) is a European Union regulation that aims to introduce a common regulatory and legal framework for artificial intelligence. The scope covers all types of artificial intelligence in a variety of sectors (exceptions are AI systems used exclusively for military, national security, research and non-professional purposes). As a product regulation, it regulates the providers of AI systems and the organizations that use them.

The AI Act plays a special role here - because it is not only restrictive, but also enabling. It will require a different development of AI systems in the future. A system must be adapted to a wide variety of users and be transparent towards them. A study commissioned by the Federal Ministry for Economic Affairs and Energy shows that the need for explainable AI will increase significantly over the next five to ten years, especially at management level in companies, among users and in public authorities. With the AI Act, all of these groups will have the right to comprehensible, clear answers on their side.

But making AI explainable is more than just a legal requirement that can cost companies dearly if ignored. There are also huge profit opportunities for companies if they understand their AI systems better. The business value

that additional data knowledge provides is immense. An entrepreneur can do little with the pure forecast of a sales figure by an AI when she has to make a decision. She is much more interested in the factors that influenced the forecast and how confident the AI is in its prediction. This is precisely what the research field of Explainable AI (XAI) answers and thus enables evidence-based decisions. At the same time, a company is paying for what is most important to users: trust and transparency. A study has shown that explanations increase users' trust in AI. Even if the AI is known to have a bias, i.e. a disproportionate weighting in favor of or against something or someone (usually in a way that is prejudiced or unfair).

The AI Act opens a new window in the EU for companies developing AI solutions: Companies have huge amounts of data at their disposal - from customer interactions to sensor data. They are looking for suitable AI solutions to convert this information into usable knowledge. The EU's AI Act will soon apply to them. Transparent AI development that meets high safety standards could become the flagship for European AI companies. And trust in European AI is coming at just the right time for these companies: LLMs from Europe have already made a name for themselves in 2023 - particularly with open source models based on Meta's LLaMa2 architecture. The French start-up Mistral is already considered a competitor to OpenAI, having published a model that is surprisingly powerful for its size and beats larger competitors in common benchmarks. LeoLM is the first German-language LLM to be published and HuggingFace has trained a convincing model based on Mistral with Zephyr. European LLMs are picking up speed - and the "AI made in Europe" seal of approval will continue to put wind in their sails in 2024.

AI TRENDS
REPORT
2024

Expert Quote

Trend #9

"Transparency will be a key issue in the field of AI. This applies to the construction of AI models, data flow, and the use of AI itself. It will significantly influence discussions on compliance, security, and trust. Transparency and security might also become competitive advantages for European companies backed by the AI Act."

Jakob Plesner

**Attorney,
Gorrissen Federspiel**
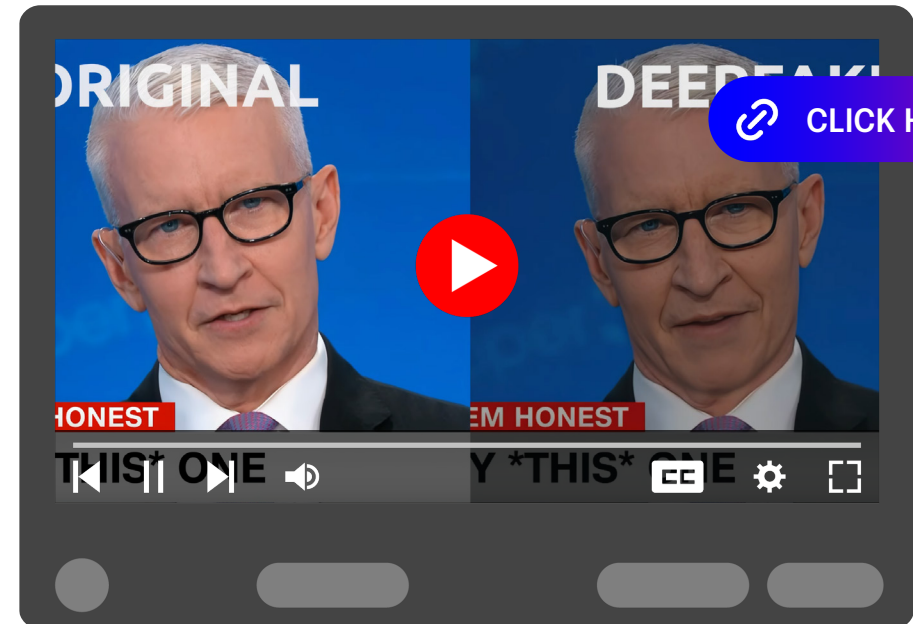
TRENDS – PART 3

TREND 10

AI Act as an opportunity: Safe AI "Made in Europe" becomes a seal of quality for investors.

Ethics vs. progress? Deepfakes, copyright infringements and election interference are blocking AI development where legal uncertainty prevails. The AI Act forms the antithesis and makes Europe a safe haven for investors.

AI has brought us amazing achievements. At the same time, it also calls into question a cornerstone of our society: the truth – or trust in the accuracy of facts. It is at the heart of decision-making in our society. After fake news and Photoshop-manipulated deep fakes, we are facing an even greater danger with GenAI. The more sophisticated and better the tools become, the more difficult it will be in future to recognize fully AI-generated content as such. Deepfake videos are getting better and better, deceiving millions of people and causing some to do terrible things. In 2024, we will see new cases of manipulation, fraud and possibly even mass panic fueled by AI content. The upcoming US elections are the first test of this.

We already know countless examples of deep fakes from the past: a false report about an explosion at the Pentagon, accompanied by an image apparently generated by artificial intelligence, spread on Twitter and triggered a temporary fall in share prices on the stock market. New AI-based deception technologies are constantly emerging in the financial sector. And there are numerous examples of deceptive deepfake videos on YouTube, such as those by Anderson Cooper and Morgan Freeman.
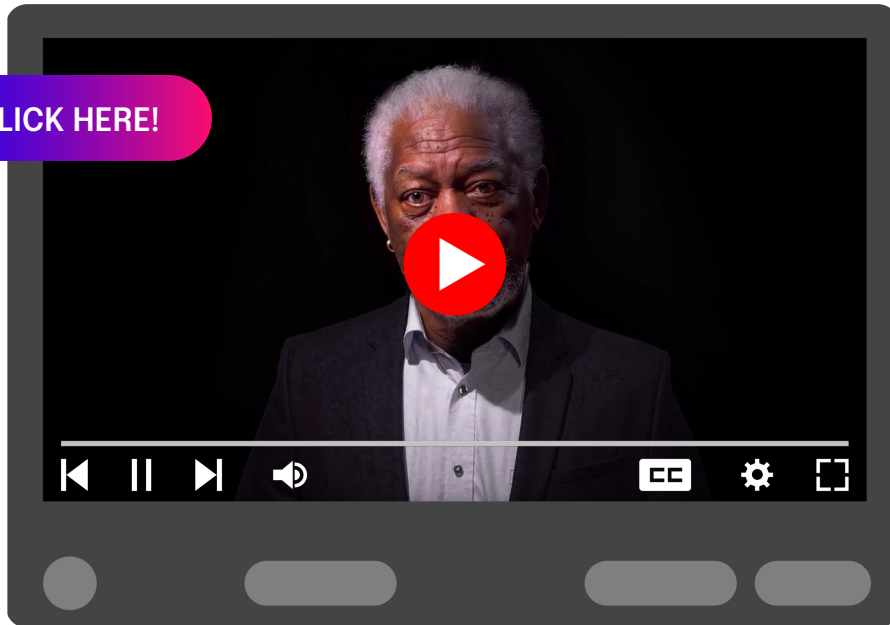
Would you recognize the original?

CLICK HERE!

The real and AI-generated sequences of the famous US newsreader Anderson Cooper are almost indistinguishable.

TRENDS – PART 3

CLICK HERE!

Morgan Freeman's video is already two years old. Since then, the technology has been constantly evolving.

But even more dramatic than the deception caused by harmful fake content is the potential damage that its dissemination does to our trust in actual facts. Any political scandal that comes to light in the future will be portrayed as fake by the other side. This creates political camps that are absolutely irreconcilable with each other because they have to reject every statement made by the other side in order for their „truth" to remain valid. If the common basis for dialog and concessions is lost as a result, political conflicts can no longer be resolved democratically using the rule of law. We are already seeing that people - even when confronted with the evidence - reject any claim to truth by the other side. An example of this that is currently doing the rounds on social media: people could start wearing a "sixth finger" in the courtroom in order to have the video footage declared invalid as a forgery afterwards. Even if the tools for verifying the truthfulness of images and videos improve, images, videos and audio files will be less and less valid as evidence of anything in 2024.

What can we do about it? In Europe, the AI Act will give us a big head start in trust-building, because regulation of the organizations that control and use AI is a key building block for collective trust. In this sense, AI is no different than any other service: we don't trust individual pilots, we trust the airline to put well-trained and well-rested professionals in the cockpits on time. We do not trust the cooks, but the system of health regulations under which they work.

The second important building block is education. People have always adapted and developed their skills and knowledge to new technology. With the appropriate AI skills, they will - at least on average - also act more cautiously when dealing with divisive content. In addition, Instagram, LinkedIn and the like will need to protect the integrity of their platforms for users. They will develop tools and measures to recognize and counteract manipulated generative content. Last but not least, established brands - from media companies to political parties - will continue to be trusted in the future as long as they justify this trust. There is much to suggest that the AI Act will make Europe a safe haven for AI.

AI TRENDS REPORT 2024

Expert Quote

Trend #10

"Companies facing technological transformation need a clear book of rules. By establishing a seal of quality for human-centric AI, the AI Act transforms challenges into opportunities. The AI Act will become a blue print internationally, giving EU companies a head start on responsible AI and making Europe a place for sustainable AI partnerships."

Catharina Glugla

Head of Data, Cyber & Tech Germany, Allen & Overy LLP

AI TRENDS REPORT 2024

Expert Quote

Trend #10

"While 2023 was a game of speed, growing com-moditization of AI will force 2024 into a game of scale. In 2024 Investors - still flowing the AI-Mar-ket - will seek to minimize their exposure to lia-bilities. Legal Certainty combined with Brussels Effect place EU AI Act at the center of the playg-round: compliance will become a decisive asset to seduce best investors."

Philippe Coution

**Business Development Lead
AI Quality, TÜV SÜD**

AI
TRENDS
REPORT
2024

Expert Quote

Trend #10

"While AI technology's full potential remains untapped, the EU is poised to take the lead with the impending AI Act. The crucial role of legal regulation in determining whether innovation thrives or slowly fades into oblivion has once again come to the forefront. One looming question remains: Will it really foster responsible technology or are we risking to stifle the transformative power of AI?"

Julius Heinz

CFO, statworx

AI
TRENDS
REPORT
2024

Expert Quote
Trend #10

"Both the EU AI Act and voluntary commitments a la „AI tested in Europe" will play a strategic role in 2024. Tested AI Systems, including certifications or seals, will serve as trust anchor either for market access or for increased adoption rates in critical environments. The market for testing AI Systems will continue to grow."

Michael Rammensee
Managing Director, AI Quality & Testing Hub GmbH

TRENDS – PART 3

How to gain control

TREND 11

AI agents that interact with each other are changing the rules of our economy.

Personal assistance bots coordinate appointments, do the shopping and select suitable insurance policies - and are gradually transforming our everyday lives. Because they make (consumer) decisions for us every day, influencing their decisions will become the ultimate lever for companies.

In 2024, we will no longer shop on the internet ourselves, but will instruct our personal agent to scour all online stores and find the perfect summer dress or a new TV. Because not only will they know my size, my preferences, my price range and the latest trends, they might even know what my friends are wearing. And that's not all: agents will probably soon be able to search through web tools and book an appointment for me at the dentist at a time available in my calendar. The possibilities are endless: the bots will book flights, order food according to my wishes and restrictions or even decide which health insurance is best for me. This saves a lot of time in everyday life, but also has a huge impact on our economy:

1. Which provider "my" agent is from will significantly influence what it recommends and buys for me. If you ask Amazon's Alexa to order a product today, it will add the Amazon Basics product to the shopping cart. In future, control over this customer interface will become an even greater success factor for some - and a problem for the rest.

2. SEO and SEA will change massively if they are aimed at machines. Companies will try to manipulate agents' decision making to choose their own brand. This puts a huge price tag on Google searches like "What's the best insurance for me?".

3. Bots negotiate with each other in a proxy communication that is incomprehensible to humans. It would only be logical to give them the power to act so that they can strike at the ideal offer. This raises the question of trust: Can we rely on the bot's judgment?

Our trust in AI-supported tools such as Google Maps has grown very quickly. Equipped only with my smartphone, I get into a rental car in foreign countries and assume that I will find my vacation home in a remote coastal town without much difficulty. So it could only be a matter of time before we no longer check whether the agent has really acted in our best interests.

AI TRENDS REPORT 2024

Expert Quote
Trend #11

"There will be multiple types of AI agents that act on human intent. For example, personal agents that represent an individual, and service agents that represent an organization or institution. The interplay among them, such as personal-personal, personal-institutional and institutional-institutional, represents a new paradigm in economic activities and value distribution."

Chi Wang
Principle Researcher, Microsoft Research

AI
TRENDS REPORT 2024

Expert Quote
Trend #11

"2024 will mark the dawn of the virtual-shore. Companies will progressively source the power of autonomous agents, functioning independently and collaboratively, to liberate humans from routine tasks of daily work. We're witnessing a metamorphosis from mere augmented copilots to advanced, actionable task solvers, redefining the landscape of knowledge work."

André Monaco

Head of AI Innovation, statworx

AI TRENDS REPORT 2024

Expert Quote
Trend #11

"Humans – from CEO to specialists – communica-te on different levels of abstractions. LLM-based agents know these abstractions, and the most natural way is that they switch between them seamlessly."

Anton Osika
Creator of gpt-engineer

TRENDS – PART 3

> **TREND 12**
>
> ## Values and performance in harmony: Alignment gets the most out of foundation models.
>
> To optimize the performance of foundation models, companies invest in alignment (with universal values) to prevent unethical results. Model and superalignment open up completely new possibilities because multiple AI models collaborate to accomplish previously unsolvable tasks.

How helpful is the model's response? Is the model patronizing? Is there an impression of bias? How many prompts does it take to provide a "good answer"? Does it violate data protection? "Guardrailing", feedback and error reports from users are not enough to answer these questions.

In 2024, we will see more and more highly efficient, super-intelligent LLMs due to market demand and innovative architectures. One requirement will come to the fore: alignment. The more powerful and autonomous AI systems become, the more difficult it will be to control them with human feedback. If a super-intelligent AI or the legendary AGI soon arrives, it will be impossible for humans to evaluate and control their behavior and decisions. New approaches will then be needed: solutions in which AI systems control and correct each other. OpenAI is already working on an automated "alignment researcher" that will soon align super-intelligent AI systems with human purposes and values.

The challenge: How do you ensure that AI systems only pursue the intended goals of their developers and users? It is virtually impossible to define all possible cases of undesirable behavior in advance. An entire field of research is working hard to solve this. The implementation of guardrails can already ensure that LLM behavior remains within defined guardrails. However, these measures are not irrevocable. The steady spread of LLMs by companies of all industries and sizes will increase the pressure on alignment even further - and thus create great incentives for the development of innovative methods for controlling and evaluating model behavior.
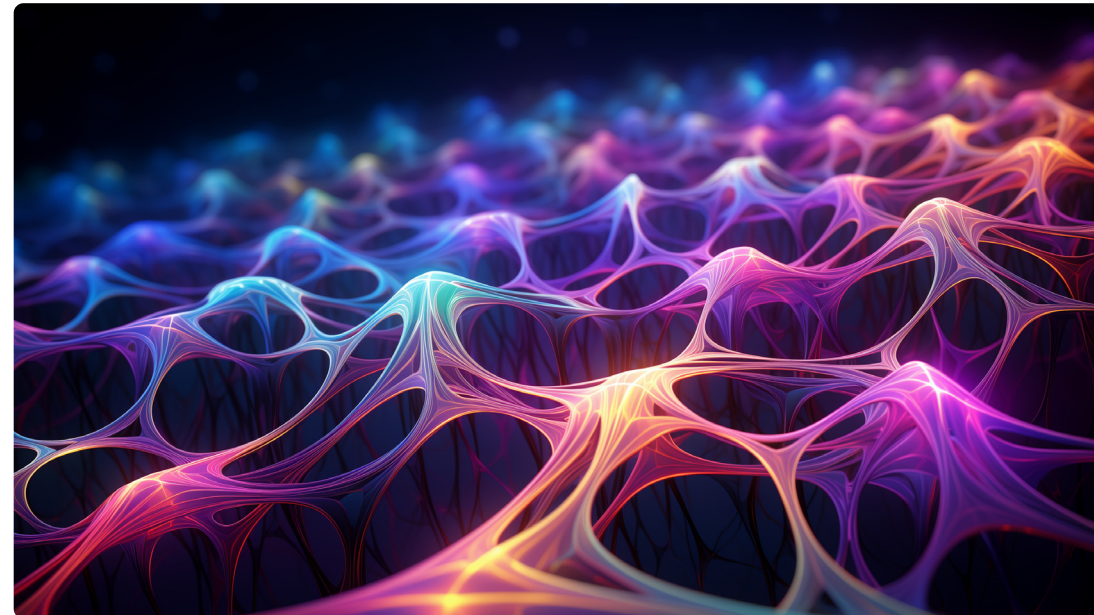
AI TRENDS REPORT 2024

Expert Quote

Trend #12

"Currently, many new application areas for foundation models are emerging in companies. Alignment plays a crucial role in this, and the Foundation Model Transparency Index provides a first insight into the transparency of these models. Furthermore, humans continue to play an important and decisive role."

Marcel Isbert

**Co-founder & COO,
AI Hub Frankfurt Rhein-Main**

AI TRENDS
REPORT
2024

Expert Quote

Trend #12

"Alignment is fundamentally an analytical prob-lem, focusing on establishing transparency and control to gain trust from users. These are the keys to effective deployment of AI solutions in businesses, for continuous evaluation, and for secure iteration based on the right metrics."

Daniel Lüttgau

Head of AI Development, statworx

IN CLOSING...

Outro

In 2024, we are still at many political, ecological and social turning points. AI is not a panacea for a better world. But the concepts and models behind it are more than just promising future technologies. They are already shaping the everyday lives of millions of people and numerous companies - and they are powerful tools that can help solve some of the biggest challenges.

Our AI Trends Report 2024 discusses twelve dynamic trends from the areas of culture and development, data and technology, and transparency and control with numerous renowned experts. Some of these trends could change the AI landscape - and our world - forever. They can help us better prepare for upcoming challenges and opportunities. Others represent real threats that we need to take very seriously. The future of artificial intelligence is here and we are already in the middle of it NOW.

It is up to us to shape it for the right purposes so that it benefits the many and not just the few.

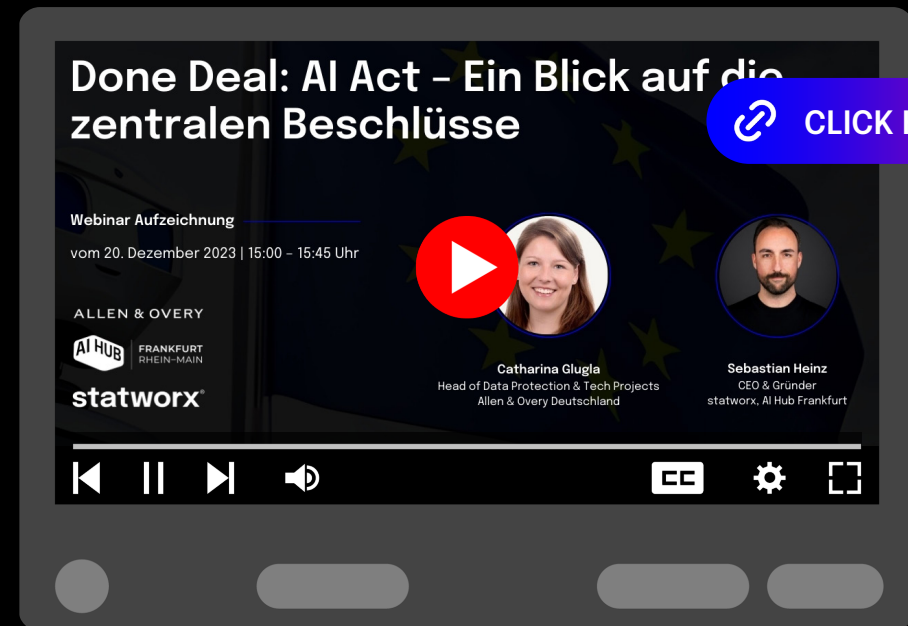**USEFUL INFORMATION FROM STATWORX**

Tips & Links

🔗 **statworx:** Data and AI Trainings

🔗 **statworx:** Data Culture

🔗 **statworx:** AI Act

🔗 **statworx:** AI Starter Offerings

🔗 **statworx:** Prompting Cheat Sheet

🔗 CLICK HERE!

There is a lot more exciting content and videos on our YouTube channel!

USEFUL INFORMATION FROM AROUND THE WORLD

Tips & Links

🔗 **Tagesspiegel:** 4-days workweek

🔗 **Stern:** 4-days workweek

🔗 **Tagesschau:** 4-days workweek

🔗 **Karrieregeflüster:** 4-days workweek

🔗 **Thomson Reuters:** Deep Fakes

🔗 **Business Insider:** Hugging Face AI-Approach

🔗 **t3n:** Explainable AI

🔗 **SRD Rechtsanwälte :** Explainable AI

🔗 **Handelsblatt :** AI Assistants

🔗 **t3n:** Online (AI) Workshops

🔗 **t3n-Guide (german):**
KI erfolgreich im Unter-
nehmen etablieren
Strategie-Workbook

ABOUT THE PUBLISHERS

statworx®

statworx is one of the leading consulting and development companies for Data Science and AI in the DACH region. We are working to shape the future of the economy, our society, and the environment positively through the application of AI.

We approach the topic of data and AI holistically. In our core business, we support companies with our business units AI Strategy, AI Development, and AI Academy. Here, we advise on strategic issues, develop tailor-made AI solutions, and strengthen skills and competencies in data and AI.

To generate positive impact in society and the environment, we have launched the initiatives AI & Society and AI & Environment. Here, we work on projects where AI makes a sustainable contribution to positive societal and ecological development.

Learn more about statworx here:

CONTACT US

www.statworx.com/en/

AI HUB | FRANKFURT RHEIN–MAIN

The initiative AI Hub Frankfurt Rhein-Main aims to strengthen the AI ecosystem in the region. Our goal is to build a leading AI ecosystem that promotes the dissemination and application of AI in the economy and society. As a central point of contact for AI-related issues, the AI Hub is aimed at the region's companies, startups, investors, talents, and citizens. Thanks to the activities of the AI Hub Frankfurt, a highly active AI community with top-notch members, including international technology companies such as Microsoft, Google, and HP, has emerged in Frankfurt over the past few months.

We have set ambitious goals for the future and are working in the areas of AI Events & Networking, AI Start-ups & Innovation, AI Consulting & Support, and AI Training & Development to advance the development and application of AI in the region.

Learn more about the AI Hub Frankfurt Rhein-Main here:

CONTACT US

www.ai-hub-frankfurt.de/en/

2024 – 02

AI | TRENDS REPORT 2024

statworx®