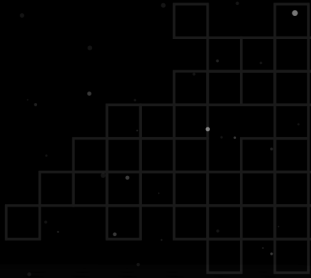


robotspaceship

TREND REPORT 2024

- 01 Trend Report 2024**
- 02 Augmented AI in the Workplace**
- 03 Generative Hybrid Media**
- 04 Multimodal AI & Robotics**
- 05 AI Legislation & Ethical AI**
- 06 AI Integrated Hardware**
- 07 About robotspaceship**



Warning!

Things are moving fast!

In full disclosure, never, in our career as futurists & consultants, have we seen such a rapid, daily, constant inflow of new innovation and news about a type of new technology, namely artificial intelligence.

It has become nearly impossible to keep up with the information firehose, much less create an up to date trend report. This report is intended to give you as much of a look ahead as possible for 2024, however, by the time you read this, things may have advanced far beyond what is discussed.

OUR KEY TAKEAWAY:

Even if you don't read anything else in this report, it is CRITICAL that you stay tapped in to what is happening in the world, regarding AI and how it impacts your business and your life. Don't wait. Stay informed, develop strategies for your business and get involved. Now let's jump in!



TREND REPORT 2024

About this Trend Report

Welcome to the 2024 Edition of the robotspaceship Trend Report!

Robotspaceship is a corporate communications consultancy, media company & innovation hub. Our brand represents innovation and our mission is to support and accelerate the development of transformational, disruptive and cutting-edge ideas and technologies.

We understand that sifting through the noise and understanding new technology trends in order to determine, not just actionable relevance, but also any form of R.O.I. for your business can be challenging.

With this report, our team of expert analysts, consultants and strategists define a set of key industry trends which we feel are critical to helping our readers to understand and navigate the new, confusing and ever changing technology landscape.

Our information is based on not just research, but real world agency level engagement, insights and feedback with clients across many industries.

Our goal with this trend report is not just to help raise awareness of recent trends, but more importantly, to provide valuable, actionable ideas that both ignite sparks of innovative thinking and provide a benchmark for what is most relevant.

The Future is Bright!

We strongly believe that while technology can be intimidating, the future is bright, and we are optimistic about the disruptive technological changes that we will face as we move into the future.

Join Us!

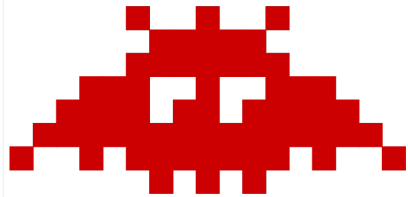
We invite you to jump on the Robot Spaceship and join us on this journey, to gain some valuable insight from our reports and be part of the community.

We encourage you to [connect with us](#) on all the relevant social channels and most importantly, share your feedback. We look forward to connecting with you.



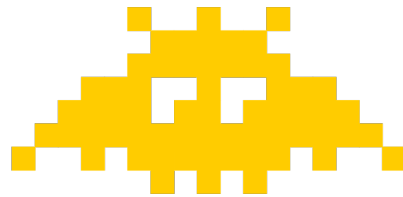
Key Action Indicators

Relevance of these trends are based on the following color codes:



WAI & WATCH

RED indicates a trend that, while may be a high level disruptive form of innovation, it will still take some time to evolve and define itself in order to be actionable or to determine results and KPI's. We recommend waiting and watching.



EXPERIMENT

YELLOW indicates a trend that is currently evolving and being engaged upon. It may be a trend worth experimenting with, however still in a state of change and results are unpredictable. We recommend watching and experimenting, but expect further change.



TAKE ACTION

GREEN indicates a trend that is currently hot and being heavily engaged upon. Results and KPI's are at a predictable level and we recommend that the trend is at a level worth taking action upon.



2023 in Retrospect

In 2023, the world witnessed the meteoric rise of generative AI.

New platforms like ChatGPT, Midjourney, ElevenLabs and Runway, marked a significant shift in the technological landscape. This year saw the emergence of AI as not just a tool for efficiency, but as a transformative force reshaping creativity, content creation, and information dissemination.

Generative AI, with its ability to create content ranging from text and code to imagery, music and video, has revolutionized numerous industries.

We observed a surge in AI-generated artworks, realistic simulations in gaming, and automated content in journalism and marketing. This evolution of AI capabilities heralded a new era of innovation but also raised profound questions about authenticity, ethics, and the future of human creativity.

The impact of generative AI on the job market was substantial. While it automated routine

tasks and opened new avenues for creativity, it also led to a re-evaluation of skillsets, emphasizing the need for a workforce that is adaptable and equipped to work alongside sophisticated AI systems.

The rapid adaptation to generative AI technologies was reminiscent of the agility businesses had to embrace during the COVID-19 pandemic, once again highlighting the importance of being able to pivot and evolve swiftly in response to changing technological landscapes.

As 2023 unfolded, the influence of generative AI extended beyond the confines of technology and business, touching upon societal and ethical dimensions. We grappled with issues of AI-generated misinformation, the potential for deepfakes in media, and the ethical considerations surrounding AI authorship. These discussions brought to the forefront the necessity for responsible AI development and use, echoing the ethical and societal recalibrations we experienced during the pandemic.

Despite the challenges posed by the rapid evolution of generative AI, the year was also marked by optimism and a sense of wonder at the possibilities it unlocked. From enhancing creative processes to revolutionizing data analysis, generative AI demonstrated its potential as a catalyst for innovation and progress.

As we transition into 2024, the lessons learned from the emergence of generative AI in 2023 remain crucial. The adaptability, ethical considerations, and innovative spirit that defined our response to this technological wave will continue to shape how we approach the future of AI and its integration into various aspects of life and business.

With a focus on responsible development and the embrace of new opportunities, we step into 2024 poised to harness the full potential of generative AI, mindful of its challenges yet optimistic about its transformative power.

The Year Ahead – 2024

2024, poised under the influence of generative AI, marks a period of significant evolution across various sectors, driven by technological advancements and a recalibrated global perspective.

Augmented AI / Shadow AI: Revolutionizing Productivity - In 2024, Augmented AI is set to revolutionize workplace efficiency. Businesses are increasingly using AI to augment human tasks, boosting productivity without expanding their workforce. This trend signifies a shift towards AI-assisted workflows, enhancing decision-making and automating routine operations.

Generative Hybrid Media: With the seemingly, daily emergence of new generative AI media creation platforms and services for text, code, imagery, audio, video and interactive gaming, we will continue to see a hybrid approach to how creators are developing dynamic content. Mixed Medium AI-generated content will offer audiences new experiences that are both hyper-realistic, creatively boundless and can be created much faster and efficiently.

Multimodal AI & Robotics: A Symbiosis of Innovation - This year, multimodal AI and robotics are expected to merge further, driving innovation across various sectors. The combination of different AI forms with advanced robotics promises enhanced interaction and efficiency, particularly in complex environments like healthcare and manufacturing and construction.

Global Politics, AI Legislation and Ethical AI: Striking Balance - With AI's growing influence, 2024 will likely see an emphasis on AI legislation and ethical practices. The focus will be on crafting regulations that ensure fairness and transparency, with companies prioritizing ethical AI likely to gain a competitive and reputational edge.

With the upcoming 2024 elections, generative AI's impact on global politics is expected to increase this year. Its ability to generate convincing content raises significant ethical questions, particularly regarding misinformation. Navigating this technology's positive and negative potentials will be a key global challenge.

AI Integrated Hardware - AI-integrated wearables like the Humane AI Pin, RayBan Smart Glasses, and new entries from Meta and Apple promise to streamline the convergence of AI with daily wear. 2024 will prove to be a strong year for the introduction of new AI-powered consumer devices.

Summary - In summary, 2024 stands as a pivotal year where technology, particularly generative AI, is not just an enabler but a transformative force.

As we navigate this year, the focus will be on integrating them into our lives and daily workflows, improving and harnessing these technologies responsibly and effectively, ensuring that they serve as catalysts for positive change and sustainable progress.



AUGMENTED AI IN THE WORKPLACE

Augmented AI in the Workforce

What We Recommend

Augmented AI or Augmented Working is the integration of AI tools and applications into employees' daily tasks and responsibilities to improve their efficiency and capacity.

In a new era where Generative Artificial Intelligence is reshaping workplaces, the trend towards augmented working environments is key.

Companies will continue to struggle this year to get up to speed with the latest AI tech, develop policies for integrating it into their workflow and to make assessments about how it can increase productivity. At the same time, while many employees will struggle with comprehension, other employees will be jumping ahead in Generative AI adoption.

BYOAI (Bring Your Own Artificial Intelligence) is an emerging workplace phenomenon in which individuals bring their own artificial intelligence tools and applications to work.

Shadow AI, also known as shadow IT for AI, refers to the use of artificial intelligence applications and technologies within an enterprise without the IT department's explicit awareness or oversight.

Embracing BYOAI can significantly boost employee empowerment and drive innovation, yet employers should be vigilant of the potential risks associated with shadow AI.

A prudent approach involves welcoming the positive elements of BYOAI while simultaneously ensuring adherence to data compliance, safeguarding security, and ensuring proper alignment with the company's structural policies.

We highly recommend making plans this year for integrating Generative AI tech into the business as well as educating employees and management. Businesses in 2024 should both, embrace BYOAI and guard against Shadow AI, adopting fluid, digitally-oriented models to thrive in this transformative landscape.



TAKE ACTION

Augmented AI in the Workforce

C.A.I.O. – Chief Artificial Intelligence Officers

As AI becomes more and more integral to business operations, companies are considering the emerging need for the role of a Chief AI Officer, a C-suite leader dedicated to overseeing AI strategy and implementation. The role would likely involve ensuring AI aligns with business goals, navigating ethical considerations, and driving innovation.


According to BCG, every C-Suite member is now a Chief AI Officer, stating that AI effects multiple organizational lines. Getting them right requires clear responsibilities and accountabilities, starting in the C-suite.

<https://www.forbes.com/sites/joemckendrick/2023/10/09/the-case-for-chief-ai-officer-a-role-whose-time-has-come/?sh=1f43da032830>

<https://www.bcg.com/publications/2024/every-c-suite-member-now-chief-ai-officer>


Forbes

The Case For Chief AI Officer: A Role Whose Time Has Come?

Joe McKendrick Senior Contributor 
I track how technology innovations move markets and careers

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Oct 9, 2023, 11:10pm EDT



A chief AI officer keeps AI on track GETTY

Augmented AI in the Workforce

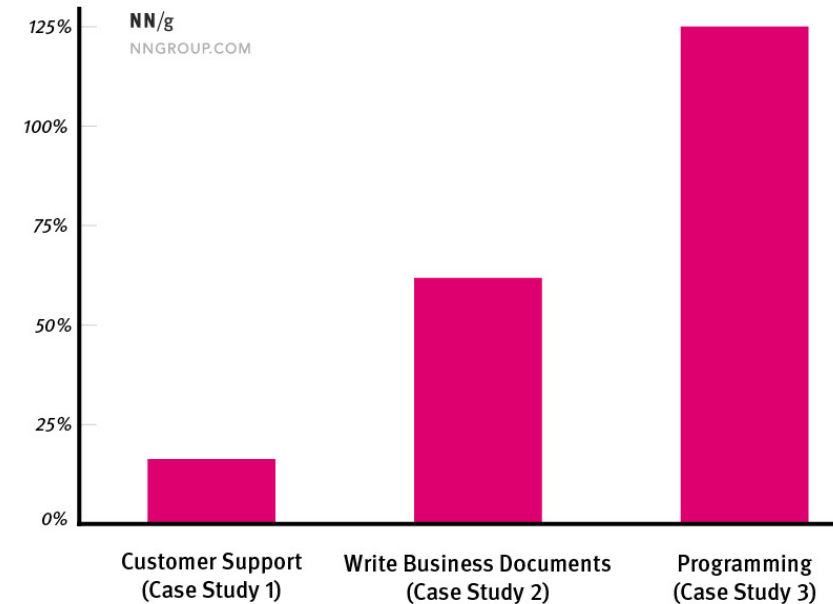
Study finds that ai improves employee productivity by as much as 66%

A 2023 study by the Nielsen/Norman Group found that using generative AI platforms (like ChatGPT) in business improves users' performance by 66%, averaged across 3 case studies. These include Customer Support Agents, Business Documentation and writing code. More complex tasks have bigger gains, and less-skilled workers benefit the most from AI use.

Additional findings determined that Gen AI narrows the gap between the most talented and the least talented employees..

<https://www.nngroup.com/articles/ai-tools-productivity-gains/>

Productivity Increases with AI



<https://www.nngroup.com/articles/ai-tools-productivity-gains/>

Augmented AI in the Workforce

Deloitte launches PairD, an internal generative AI chatbot

Deloitte has released its own chatbot for its 75,000 members of its workforce across the UK, Europe and Middle East called PairD, designed to help improve workplace efficiencies.

PairD is an internal generative AI (Gen AI) platform designed to help its workforce with day-to-day tasks, including drafting content, writing code and carrying out research safely and securely.

Deloitte says PairD can be used by staff to answer emails, draft written content, write code to automate tasks, create presentations, carry out research and create meeting agendas. It is also the hope that this type of company investment will reduce time restraints and cost in the long-term.

<https://aimagazine.com/machine-learning/deloitte-introduces-paird-ai-chatbot-for-its-workforce>

Deloitte.

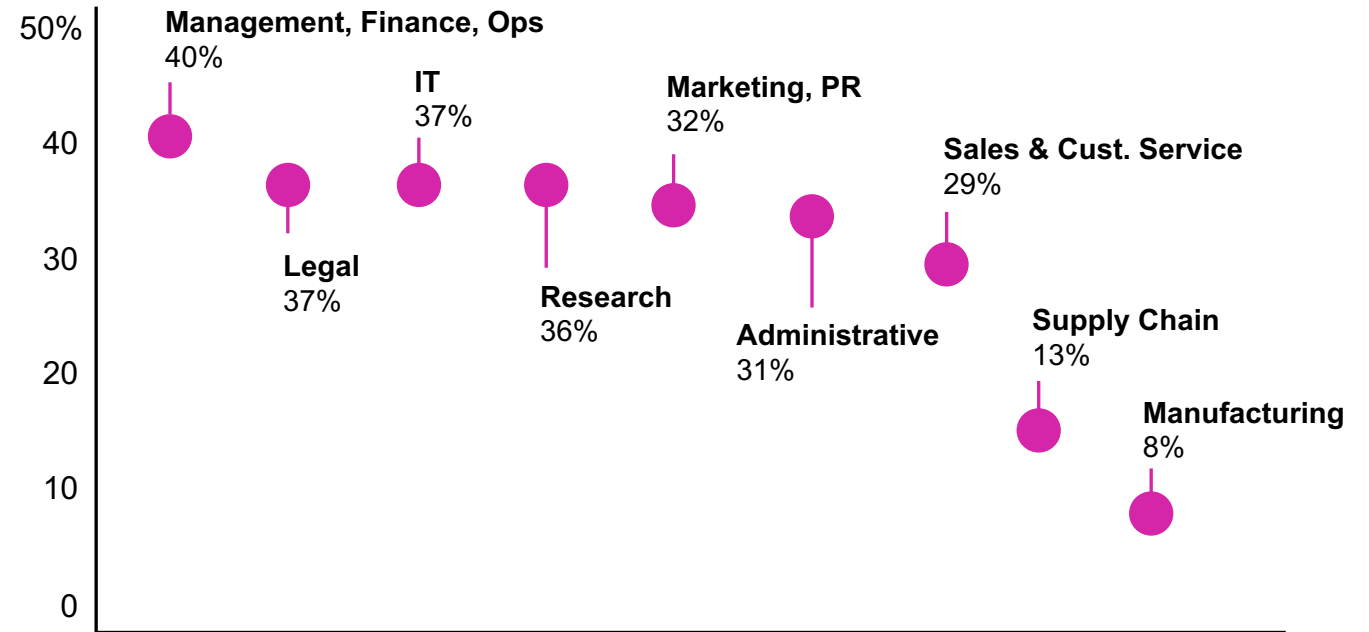


Augmented AI in the Workforce

Estimated percentage of labor time, by function, that can be automated using Generative AI.

The following chart is based on a study by Bain & Company, using research from multiple economists, industry research reports and info from the Generative AI and Firm Values - National Bureau of Economic Research, May 2023.

These numbers are significant, (Management, Finance and Ops at 40%) considering that Generative AI, in it's current form, is still in it's infancy (ChatGPT was launched in November of 2022!)



<https://www.bain.com/insights/what-every-executive-needs-to-know-about-ai-interactive>

Augmented AI in the Workforce

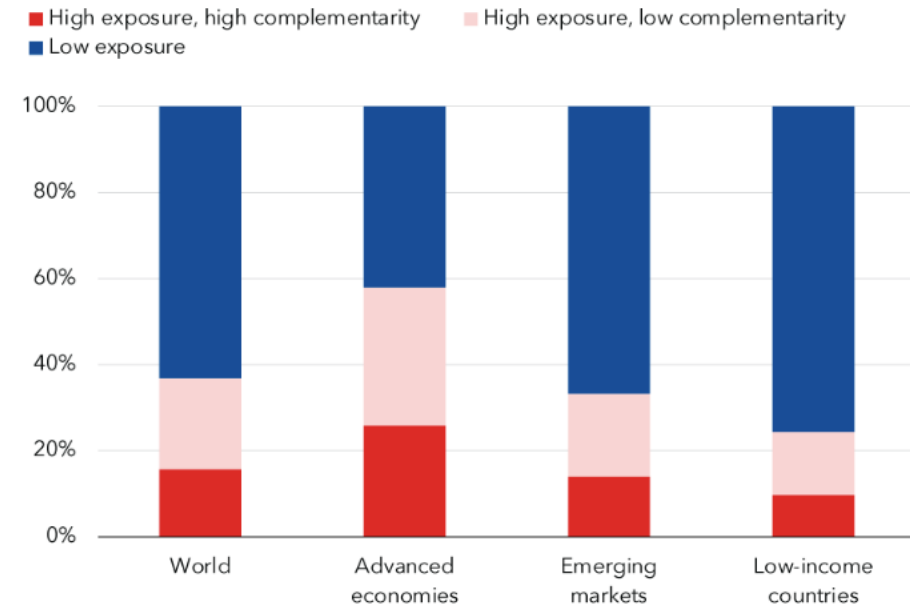
AI will affect almost 40 percent of jobs around the world

A recent article from the IMF discusses AI's significant impact on the global economy, emphasizing its potential to enhance productivity and growth. However, it also warns of risks like job displacement and rising inequality.

While not expected to happen in 20-24, the piece highlights that AI could in the near future affect nearly 40% of global jobs, with varying effects in advanced and developing economies. The article advocates for inclusive policies, such as retraining programs and social safety nets, to ensure AI benefits humanity. It also mentions the IMF's AI Preparedness Index, measuring countries' readiness for AI integration.

The article calls for proactive policy action to ensure that AI's integration benefits humanity as a whole.

Employment shares by AI exposure and complementarity



Source: International Labour Organization (ILO) and IMF staff calculations
Note: Share of employment within each country group is calculated as the working-age-population-weighted average.

IMF

<https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity>

Augmented AI in the Workforce

Goldman Sachs report - US GDP growth baseline adjustment in 2024.

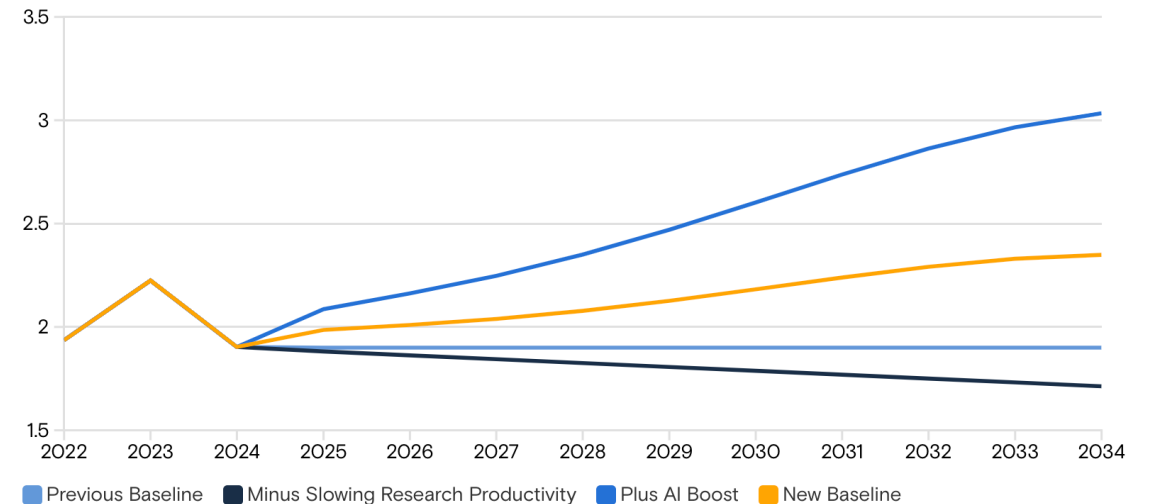
With the mainstream emergence of Generative AI in 2022-23, there was a gap of uncertainty regarding the potential economic impacts. A November 2023 report by Goldman Sachs now predicts that 2024 will be a benchmark year where a new baseline adjustment will be set for determining how Generative AI and automation will start to boost the US GDP for the next 10 years.

While the report states that the US GDP will only start to have a measurable impact in 2027, it estimates that over a 10 year period, the US GDP could increase by 3%, and the global GDP could increase by 7% (\$7 Trillion) due to Generative AI's macroeconomic effects.

“The foundation of the forecast is the finding that AI could ultimately automate around 25% of labor tasks in advanced economies and 10-20% of work in emerging economies”

<https://www.goldmansachs.com/intelligence/pages/ai-may-start-to-boost-us-gdp-in-2027.html>

GS GDP growth scenarios: US



Source: Goldman Sachs Research
New baseline shows AI boost minus slowing research productivity, net of prior technology trend.
All aggregates computed using FX country weights.

Goldman Sachs

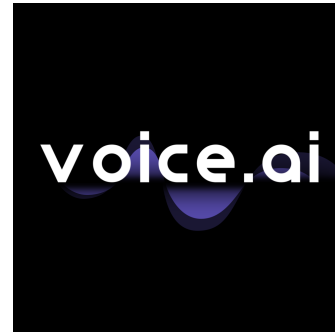
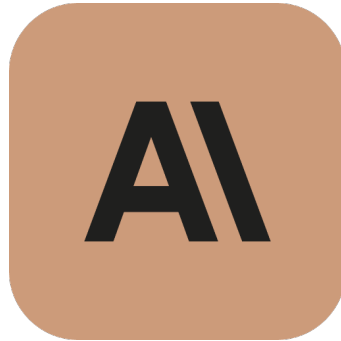




GENERATIVE HYBRID MEDIA

Generative Hybrid Media

Our Top Generative AI Platforms As Of December 2023.



||| Eleven
||| Labs



Generative Hybrid Media

ChatGPT & Claude

ChatGPT and Claude remain two of the foremost chat-based generative AI platforms that have captured the attention of both users and developers for its conversational abilities.

Built upon the GPT (Generative Pretrained Transformer) architecture, this platform has been refined over several iterations to understand and generate human-like text with impressive coherence. ChatGPT's natural language processing capabilities allow it to perform a variety of tasks, from answering questions to composing essays, making it a versatile tool in educational, professional, and entertainment contexts.

Claude, on the other hand, is another leading generative AI platform that specializes in cloud-based services. It's designed to integrate seamlessly with various business applications, providing a robust suite of tools for automating customer service, data analysis, and content generation.

Unlike ChatGPT, which is primarily known for its text-based interactions, Claude often focuses on offering comprehensive AI solutions that extend into predictive analytics and automated workflows, catering to a corporate audience looking for end-to-end AI integration.



The primary difference between ChatGPT and Claude lies in their applications and target users. ChatGPT is renowned for its conversational expertise and is often utilized in scenarios requiring deep natural language understanding. Claude, with its broad array of cloud services, is tailored more towards businesses seeking AI-driven automation and data processing capabilities.

While ChatGPT simulates human conversation, enabling users to obtain information or generate text-based content, Claude acts as an AI infrastructure, facilitating a wide range of automated tasks that can support large-scale enterprise operations. This distinction marks ChatGPT as a user-focused platform ideal for interactive use cases, whereas Claude serves as an enterprise-level tool that businesses leverage for efficiency and scaling operations.

<https://chat.openai.com/>

<https://claude.ai/>

Generative Hybrid Media

Midjourney & Leonardo.ai

Midjourney has gained prominence as a leading AI art platform, celebrated for its ability to create visually stunning and highly creative artworks. The platform integrates with Discord and utilizes advanced algorithms to interpret user prompts and generate unique images, making it popular among artists, designers, and hobbyists.

Midjourney is particularly noted for its user-friendly interface and the ability to produce complex visual styles, which has made it a favorite for those looking to explore the boundaries of AI-assisted creativity.

Leonardo.ai, on the other hand, is another significant player in the AI art space, known for its emphasis on collaboration between AI and human artists. This platform offers tools that not only generate art but also provide suggestions and modifications to existing works, making it an ideal choice for professional artists and designers who seek to blend their skills with AI capabilities.



Midjourney



Leonardo.ai stands out for its focus on enhancing the creative process, offering features that assist in refining and developing artistic concepts.

The primary distinction between Midjourney and Leonardo.ai lies in their approach and target audience. Midjourney excels in autonomous art creation, providing a straightforward platform for generating diverse artistic outputs from simple prompts.

<https://www.midjourney.com/>

<https://app.leonardo.ai/>



Generative Hybrid Media

Voice.ai

The logo for Voice.ai, featuring the text "voice.ai" in white lowercase letters on a black square background with a subtle blue glow effect.

An exciting and concerning tool for musicians, recording engineers and producers, Voice.ai is renowned for its advanced voice synthesis and natural language processing capabilities. It excels in generating lifelike, human-sounding voices, making it indispensable in various sectors like customer support, entertainment, and education. Beyond voice generation, Voice.ai offers a suite of audio processing tools, enhancing its utility across different applications.

Key services include:

- 1. Voice Changer:** This feature allows users to alter voice recordings, enabling changes in pitch, tone, and style, ideal for creative projects or privacy concerns.
- 2. Vocal Remover:** Useful for musicians and producers, this tool efficiently extracts vocals from any track, leaving behind a clean instrumental version.
- 3. Echo Remover:** This function is essential in improving audio quality by eliminating echo from recordings, vital for professional-grade podcasts and videos.

4. Stem Splitter: It separates audio tracks into individual components, like vocals, instruments, and beats, which is crucial for remixing and sampling.

5. Key BPM Finder: This feature aids DJs and music producers in identifying the key and tempo of a song, streamlining the music mixing process.

6. Reverb Remover: It removes unwanted reverb from audio recordings, ensuring clarity and crispness, especially in dialogue and music tracks.

Voice.ai is not just a platform for realistic voice generation but a comprehensive solution for a wide array of audio needs. Its versatility makes it a go-to choice for industries and individuals seeking advanced voice and audio processing capabilities, bridging the gap between AI technology and high-quality audio production.

<https://voice.ai/>

Generative Hybrid Media

Eleven Labs & Runway

||Eleven ||Labs

ElevenLabs offers an AI voice generator service that converts text to speech in a variety of languages and styles. Their technology is designed to produce natural-sounding voices with human-like intonations, suitable for a wide range of applications like video creation, gaming, audiobooks, and AI chatbots.

The service includes features such as voice cloning, creating new voices, and a library of synthetic voices. It supports text-to-speech conversion in 29 languages, catering to different user needs from personal projects to business applications.

<https://elevenlabs.io/>



Runway is an applied AI research company focusing on advancing creativity through artificial intelligence. They offer innovative tools and platforms for various creative fields, including art and entertainment, enabling new storytelling paradigms.

Runway's services include generating videos, images, and custom AI models, aiming to empower creators globally with AI's creative potential.

<https://runwayml.com/>



Generative Hybrid Media

Google Gemini Multimodal AI Demo

In December 2023, Google announced Gemini, its most capable AI model to date. In one of a series of videos, Google showed off the mid-level range of the model dubbed Gemini Pro by demonstrating how it could recognize a series of illustrations of a duck, describing the changes a drawing went through at a conversational pace.

Although Google admitted that parts of the Demo were shortened for the purpose of reducing latency, this gives insight into the direction that Generative AI and LLM's are going in terms of being able to understand context.

<https://www.youtube.com/watch?v=UIZaiXYceBI>



Generative Hybrid Media

Robojournalism

2024 will continue to be a challenging year for journalists and media companies as the technology becomes more and more prominent.

On the positive side, journalists and newsrooms will be using AI in new ways to create more interesting and engaging content: “While the first blush of generative AI applications is around producing traditional articles, it can also help to sift through public input, separating the wheat from the chaff, and revive old engagement tools like comment sections and tip lines.”

On the negative side, while businesses, marketing departments and newsrooms struggle with the competitive nature that generative AI poses, media executives are voicing concerns with AI in journalism, highlighting fears of diminished public trust and potential revenue losses from AI licensing deals.

In a year’s time, AI’s role in newsrooms has shifted from back-end tasks to content creation, raising questions about job security and accuracy.

Recent AI mishaps have heightened worries about reputational risks and the proliferation of very convincing deepfake content during an election year, while social media’s declining referral traffic poses strategic challenges.

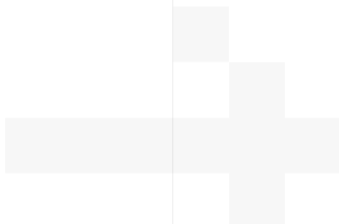
The industry anticipates more bundling of digital content and AI-driven competition in search and news distribution, leading to potential copyright battles and unequal revenue sharing among publishers

[.https://www.thequint.com/tech-and-auto/tech-news/ai-newsrooms-what-media-bosses-are-worried-about-reuters-institute-report-2024-key-findings](https://www.thequint.com/tech-and-auto/tech-news/ai-newsrooms-what-media-bosses-are-worried-about-reuters-institute-report-2024-key-findings)

<https://www.poynter.org/commentary/2024/how-ai-will-reshape-journalisms-narrative-in-2024/>



AI Bild – Midjourney



Generative Hybrid Media

Mixing game engines with AI to create cinematic video

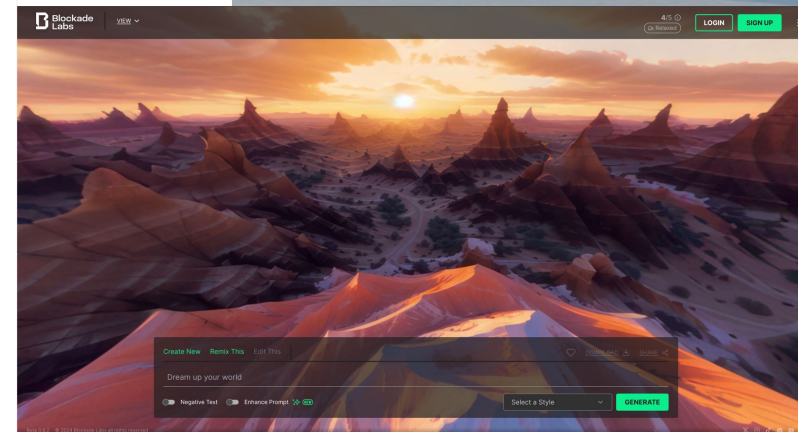
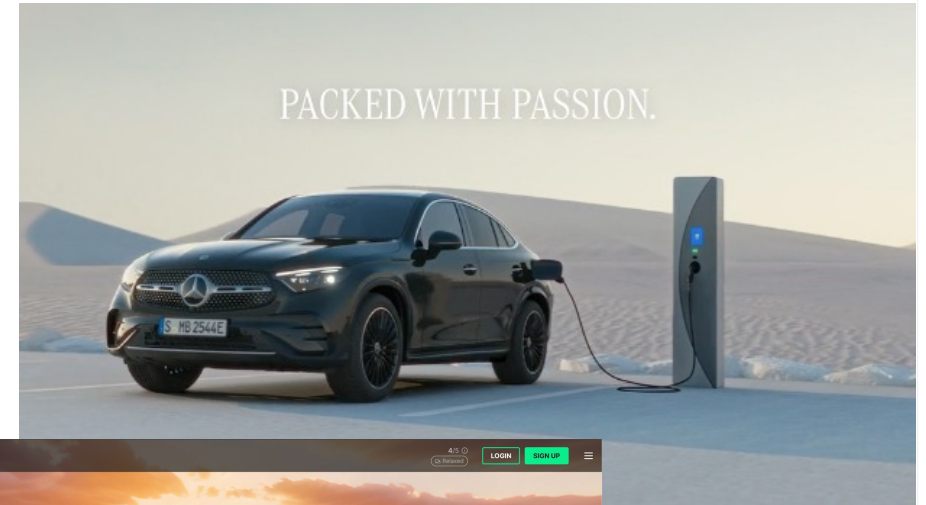
In 2023, Mercedes-Benz released what they claim is the first car commercial, entirely shot in Epic Game's Unreal engine.

While popular films such as "Rogue One: A Star Wars Story," "War of the Planet of the Apes" have all used gaming engines in the past, content creators are exploring newer Generative AI technology in combination with gaming engines, such as Blockade Lab's AI Skybox generator, to streamline the time, complexity and cost of creating cinematic quality content.

We expect this trend to continue to gain traction in 2024.

<https://vimeo.com/818287680>

<https://skybox.blockadelabs.com/>



Generative Hybrid Media

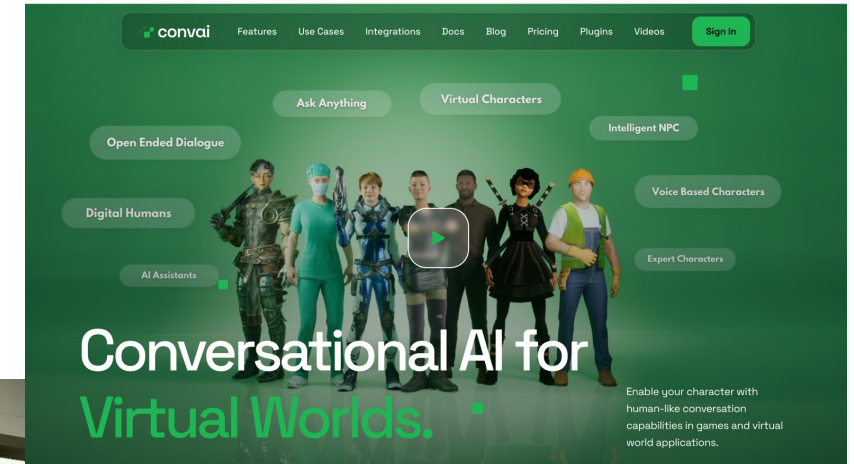
Generative AI In-Game NPC's

At its CES 2024 press conference, Nvidia announced details of a partnership with the AI company Convai, intended to create generative AI non-player characters (or NPCs) for video games.

Typically these are time consuming features that need to be planned, directed and hand programmed by developers, but this new direction will open up a new world of future interactive entertainment, where players will engage with unique in-game characters and never get the same experience.

In addition to video games, we expect generative AI NPC's to start to appear in other forms of sales, education, entertainment, sports, personal assistants, HR, customer service, etc.

<https://www.convai.com/>



<https://www.youtube.com/watch?v=-R4PWlkgOSk>



Generative Hybrid Media

What We Recommend

There are two simultaneous trends that are pushing corporate communications and media creation in 2024:

In order to be competitive in today's digital / social landscape, businesses MUST have a constant digital presence using multiple types of digital content. The focus on continuous short and long form video, social and audio content is a must, as well as the need for an integrated corporate newsroom infrastructure to maintain it.

Mass generated, cost efficient Generative AI integrated with existing digital media tools will be replacing more and more traditional media companies and marketing departments. The signal to noise ratio of AI-based media in 2024 will grow exponentially, so in order to grab the consumer's attention, businesses will need to rapidly integrate Augmented AI into their digital media strategies.

In 2024, News, Media and Corporate Marketing will continue to switch away from text based and traditional print media and place more emphasis on streaming, video, social, digital newsrooms, employee influencers, subscription models and owned channels such as newsletters and podcasts.



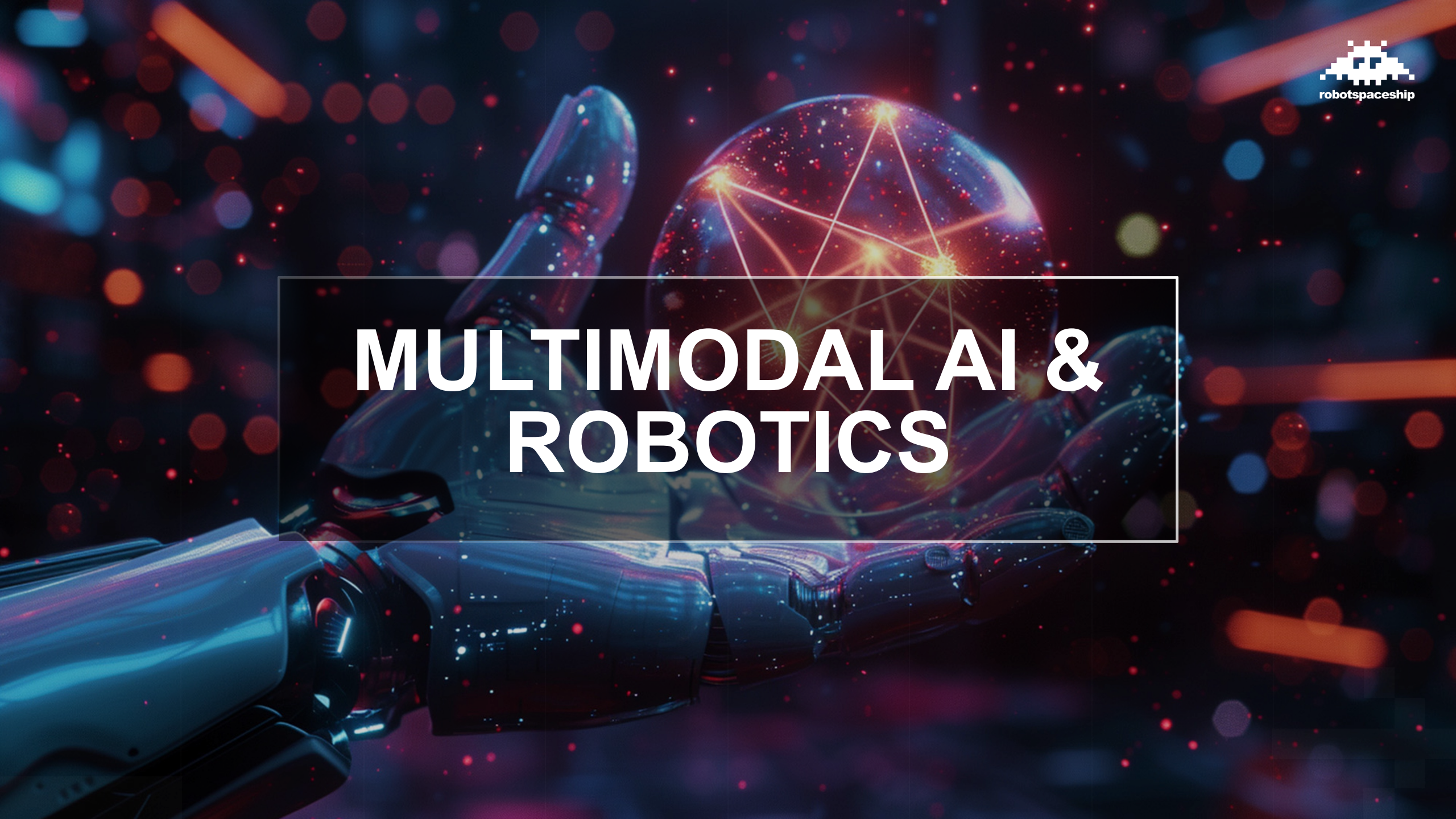
TAKE ACTION

According to a report by Reuters Institute, data from a survey of 314 media leaders in 56 countries for 'Journalism, media and technology trends and predictions 2024' indicate an increase in planning for video (64%) Newsletters (52%) and Podcasts (47%).

TikTok, Instagram, LinkedIn and YouTube will continue to remain the most used social media platforms and the primary means for how consumers get news and information. Despite political controversy, TikTok is in and will remain in the lead, especially among Gen Z.

Additional effort is being made by TikTok to compete with long form media channels such as YouTube and even Netflix. Expect a much greater focus on TikTok's move to longer, 10 to 30 minute horizontal videos and live streaming in 2024.

We highly recommend that in order to be successful in 2024, businesses can no longer sit on sidelines and maintain traditional legacy media and marketing strategies. It is imperative that they adopt a continuous, Augmented AI and hybrid media approach to stay relevant in today's digital / social landscape.



MULTIMODAL AI & ROBOTICS

Multimodal AI & Robotics

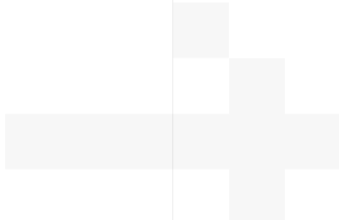
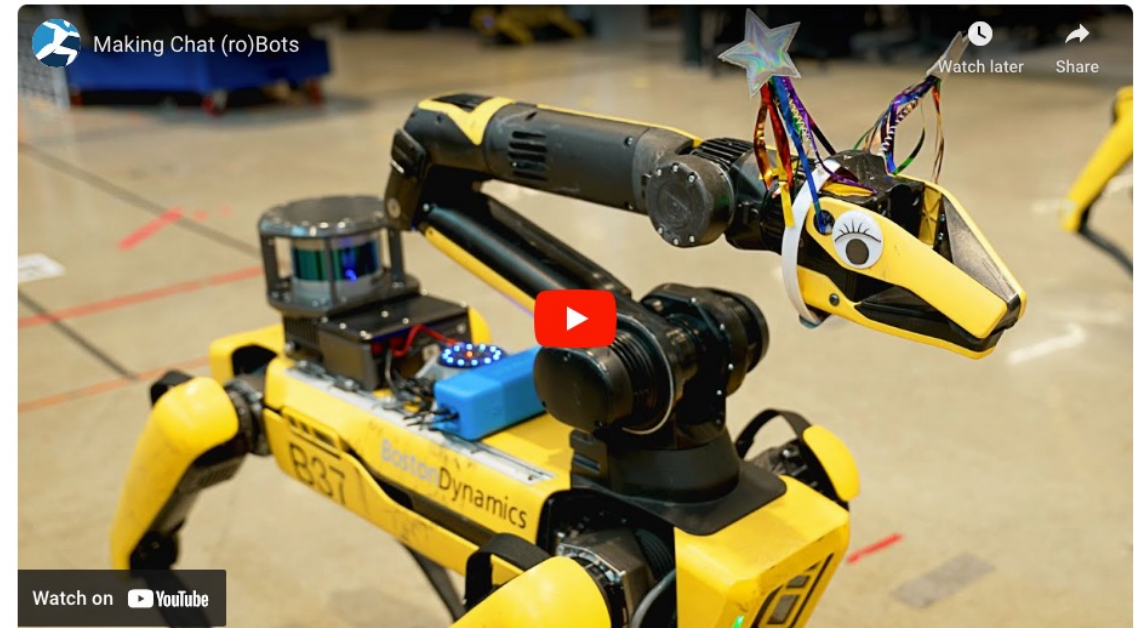
Boston Dynamics Chat (ro)Bot

Boston Dynamics, the makers of the popular “Spot” robot dog, recently created a robot tour guide using Spot integrated with Chat GPT and other AI models as a proof of concept for the robotics applications of their foundational models.

Using the LLM, the robot could answer questions from the tour audience, and plan what actions it should take next, while guiding the visitors around a simulated museum featuring other Boston Dynamics products

[.https://bostondynamics.com/blog/robots-that-can-chat/](https://bostondynamics.com/blog/robots-that-can-chat/)

<https://www.youtube.com/watch?v=djzOBZUFzTw>



Multimodal AI & Robotics

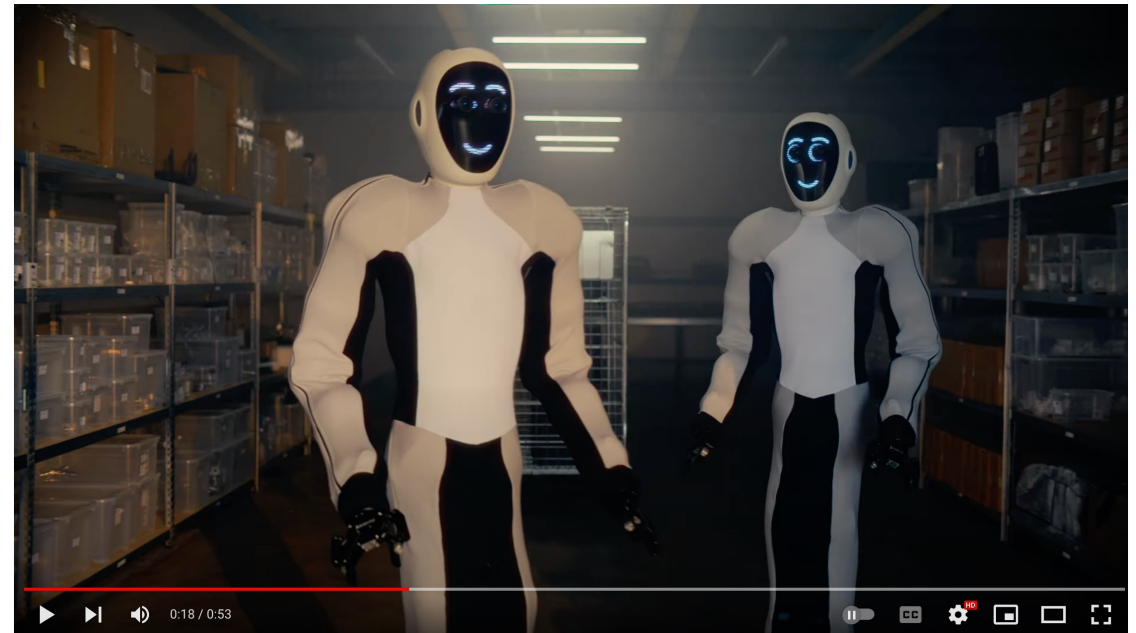
1X EVE Android & ChatGPTV

The EVE Android, developed by the Norwegian firm 1X, has the capability to scan pantry shelves and devise recipes based on its observations. This ability is powered by a specialized variant of GPT-4, the technology that also drives ChatGPT. The GPT-4V adaptation enables the robot to process visual data – such as the ingredients located on a shelf – and creatively generate recipe ideas.

EVE is designed with intricate 'hands' that operate via tendon-like artificial muscles. Demonstrations of the android showcase its skills, including crafting paper airplanes and accurately pouring milk.

OpenAI, the creator of ChatGPT, has contributed to the development of EVE through its Startup Fund, leading a funding round that provided 1X with \$23.5 million (£18.5 million). This investment supports the creation of robots capable of performing tasks traditionally done by humans. Currently, EVE is undergoing trials in a Norwegian kitchen, where it demonstrates a range of abilities from dishwashing to baking cookies.

<https://www.1x.tech/>



<https://www.youtube.com/watch?v=AvHVemoa5TY&t=6s>

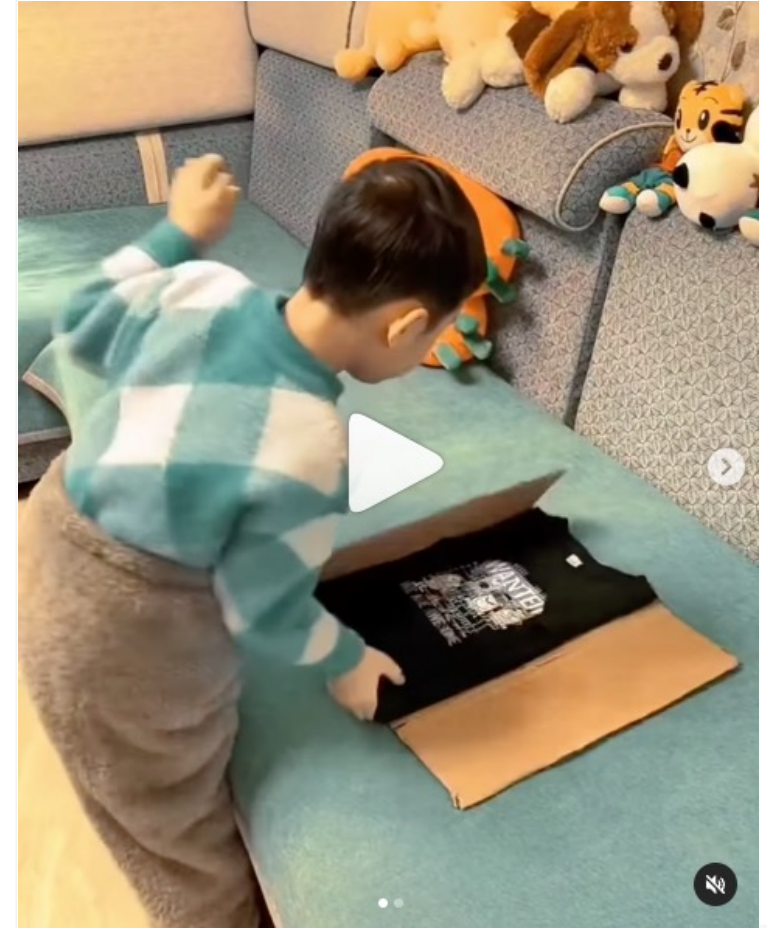
Multimodal AI & Robotics

Tesla Robot Folding Shirts

A recent video on X shared by Tesla's CEO Elon Musk featured the company's Optimus robot folding a shirt.

Tesla first unveiled the robot in 2022, as part of Tesla's broader goals to automate all physical human labour and supercharge the company's manufacturing processes. While still no match for this child on Instagram using a makeshift cardboard box, the pace of AI and robotics will soon outpace the fastest human.

<https://www.youtube.com/watch?v=r-ESjYObptw>



<https://www.instagram.com/p/C2EebkMxhmB/?igsh=MWd5NDV0Y3FidzdkbQ%3D%3D>

Multimodal AI & Robotics

AI Brain Interface

Researchers from UC San Francisco and UC Berkeley are using Neuroprosthesis (a human brain interface) combined with AI to decode a stroke survivor's brain signals, turning them into text, speech and facial expressions conveyed via a digital avatar.

<https://www.ucsf.edu/news/2023/08/425986/how-artificial-intelligence-gave-paralyzed-woman-her-voice-back>

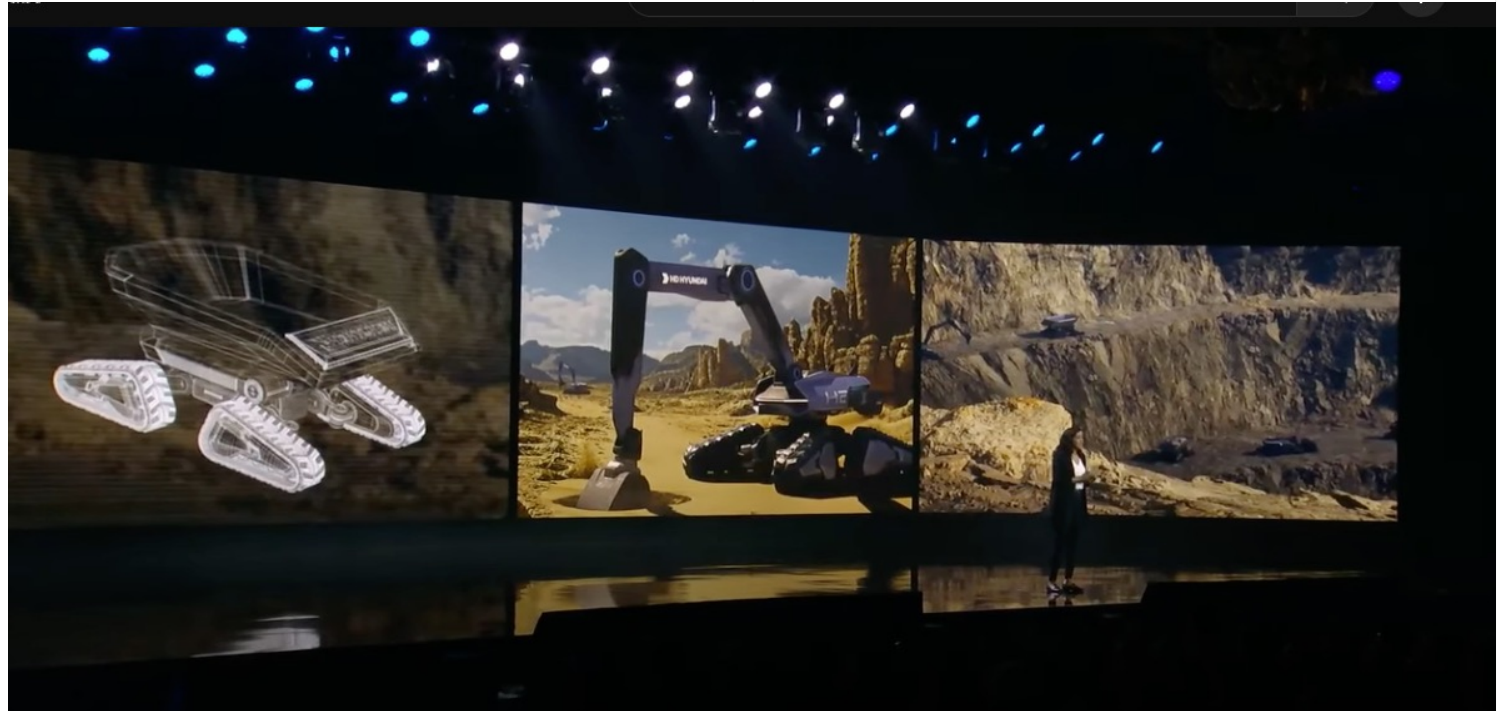


Multimodal AI & Robotics

HD Hyundai Fully Autonomous Construction Equipment

At CES 2024, HD Hyundai revealed its very bold initiatives to develop fully autonomous EV robotic construction equipment and smart infrastructure. The company is teaming up with Amazon Web Services (AWS) to lead the innovation of future unmanned and autonomous construction sites, and the development of X-Wise Xite, an AI-powered construction site management solution

HD Hyundai anticipates a substantial productivity surge of 30-70% in construction site and improved safety by transitioning towards unmanned operations.



CES Keynote - <https://www.youtube.com/watch?v=dwCuCFUT3AI>

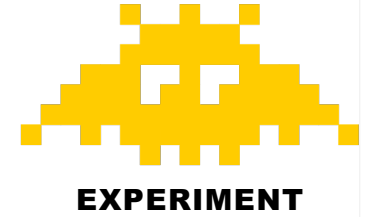
Multimodal AI & Robotics

What We Recommend

In 2024 there is a clear uptick in the advancement of industrial / enterprise level autonomous robotics, which are also integrated with generative AI and LLM's which allow for more personalized and contextualized communication.

While much of this will not impact the average consumer this year, we expect much greater involvement and advancement, especially in manufacturing and construction.

Companies such as Boston Dynamics have been developing industrial robotics for many years, however initiatives by companies such as HD Hyundai will be fostering in a new era of large scale and networked autonomous infrastructure involvement on a global level.



For the average consumer, we recommend keeping an eye on the progress on these industries.

For businesses that provide manufacturing, construction, or logistics, this area will only become much more important and prominent in the coming short term, so we recommend as much involvement in research and development as possible. It was very clear at CES 2024 that countries who are not actively planning new strategies for autonomous infrastructure development will be left behind in the very near future.

Need advice on how to innovate your business?

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AI LEGISLATION & ETHICAL AI

AI Legislation & Ethical AI

EU – AI Act

In the first half of 2024, the EU Parliament will make a final vote on the world's first sweeping AI law, the AI Act. Key takeaways include:

- **Introduction of Binding Rules:** The AI Act establishes legally binding rules for transparency and ethics in AI, mandating notifications when interacting with chatbots or AI systems using biometric categorization, and requires labeling of deepfakes and AI-generated content.
- **Flexibility for AI Companies:** The Act provides considerable leeway for AI companies, particularly in terms of categorizing powerful AI models and self-assessing compliance with stricter regulations.
- **Establishment of AI Regulatory Authority:** A new European AI Office will be created to enforce compliance, making the EU a leading global AI regulator with significant penalties for noncompliance.
- **National Security Exception:** Certain AI uses are banned in the EU, but the Act excludes AI systems developed exclusively for military and defense uses, and allows limited police use of biometric systems.
- **Implementation and Compliance Timeline:** The final text of the bill is pending, but once enacted, tech companies will have specific timeframes to comply with the new regulations.

<https://www.europarl.europa.eu/news/en/headlines/society/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence>



Bild: Midjourney



AI Legislation & Ethical AI

USA - AI Initiatives

While the USA has taken a more relaxed approach to AI regulation compared to the EU, in 2024, U.S. states are actively enacting AI regulation, with large economies like New York, California, and Florida introducing new legislation.

These laws draw from the EU AI Act and address vertical sectors, such as AI in public contracts and autonomous vehicles. California's bills, for instance, require risk assessments for generative AI and standards for AI services in state contracts. Florida emphasizes AI transparency across various applications, including government and social media.

This state-level approach necessitates adaptable AI governance strategies for businesses, as they must comply with diverse regulations across states.

<https://www.holisticai.com/blog/what-states-are-making-moves-in-us-ai-regulation-2024>



AI Image created with - Midjourney

AI Legislation & Ethical AI

Copyright Laws

In December 2023, the New York Times filed a lawsuit against OpenAI and its backer Microsoft, asking the court to erase all large language models (LLMs), including ChatGPT, and all training datasets that rely on the publication's copyrighted content. The NYT is alleging that these AI systems engaged in 'widescale copying', which is a violation of copyright law.

OpenAI's argument is that it is 'impossible' to train ChatGPT without copyrighted work and is working within legal framework to use "fair use" online works.

This is just one of a string of other litigations from publishers, authors and artists against OpenAI and other AI platforms, that will prove for a challenging year for AI and copyright laws.

<https://dig.watch/updates/ai-industry-faces-threat-of-copyright-law-in-2024>

The
New York
Times

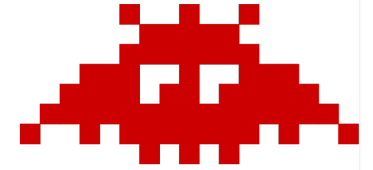


AI Legislation & Ethical AI

What We Recommend

As 2024 unfolds, it is evident that AI regulation will play a pivotal role in shaping the future of technology and its integration into society. The initiatives in the EU and the U.S. are just the beginning of a global shift towards more structured governance of AI, with the 'Brussels effect' (stringent EU regulations that tend to set a global standard) sets a precedent for other regions.

This year will be critical in determining how these regulations balance innovation with ethical considerations and public welfare. As countries around the world navigate this new regulatory landscape, the collective focus will be on harnessing the transformative power of AI while safeguarding fundamental rights and fostering global cooperation in the AI domain



WAI & WATCH

While regulations will happen this year, we recommend, waiting and watching closely in order to determine what regulations will be made in both the EU and the US that will impact your business.

Schedule a Workshop

Need advice on how to address AI regulations with your business?

[Contact Us Today](#) and schedule a workshop!



A top-down view of various smart devices including a VR headset, headphones, a smartwatch, a smartphone, and glasses, all set against a background of glowing neon lines in shades of blue and purple.

AI INTEGRATED HARDWARE

AI Integrated Hardware

Ex Apple Designers in Collaboration with Open AI

Jony Ive, the designer behind many of Apple's iconic products, has embarked on a collaboration with OpenAI (including over \$1 billion in funding from Softbank CEO Masayoshi Sonto) to create a new generation of AI-powered devices. The aim is to bring artificial intelligence more seamlessly into daily life, potentially redefining the user experience with new wearable technology. Apple's Design executive Tang Tan is also set to leave Apple in February to join the team.

This partnership signals a significant commitment to the practical and aesthetic integration of AI in consumer electronics, hinting at devices that are not only smart but also intuitive and user-friendly.

Whether or not we see any products from this partnership in 2024 or not, this is a big signal that the tech industry is making a huge shift in a new direction of the development of future wearable devices.

Verge: <https://www.theverge.com/2023/9/28/23893939/jony-ive-openai-sam-altman-iphone-of-artificial-intelligence-device>

TECH / ARTIFICIAL INTELLIGENCE / APPLE

Details emerge on Jony Ive and OpenAI's plan to build the 'iPhone of artificial intelligence'



Ive (pictured) has been brainstorming ideas for the device with OpenAI CEO Sam Altman. Photo by Jerod Harris/Getty Images for Vox Media

/ The project aims to create a more natural way to interact with AI, fueled by over \$1 billion in funding from Softbank CEO Masayoshi Son.

By [Jess Weatherbed](#), a news writer focused on creative industries, computing, and internet culture. Jess started her career at TechRadar, covering news and hardware reviews.

Sep 28, 2023, 11:20 AM GMT+2 | [18 Comments](#) / [18 New](#)



AI Integrated Hardware

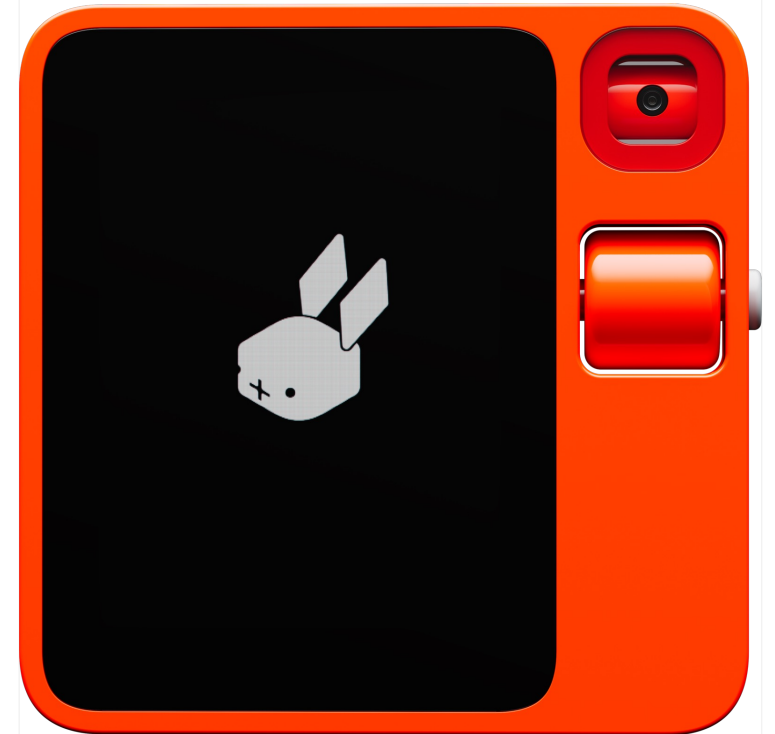
Rabbit R1 at CES 2024

At CES 2024, US start-up Rabbit, in collaboration with tech company Teenage Engineering, unveiled the R1. This innovative device, dubbed a "pocket companion," is designed to challenge the prevalent use of smartphones by leveraging artificial intelligence to execute tasks.

Rabbit R1, a compact, vibrant orange AI assistant, can autonomously perform a variety of complex tasks at the behest of its user. This palm-sized gadget is capable of booking flights, streaming music, and even editing Photoshop images, among other functionalities.

Described by its creators as a "pocket companion," the R1 is operated by pressing and holding a button on its right side, similar to using a walkie-talkie. Users interact with the R1 in natural language, while a straightforward visual interface displays their assistant as a bunny crafted in pixel art style.

The device is powered by their proprietary Rabbit OS, which is paired with what they are calling a Large Action Model, LAM, which they state is *"the cornerstone of rabbit OS. LAM is a new type of foundation model that understands human intentions on computers. With LAM, rabbit OS understands what you say and gets things done."*



<https://www.rabbit.tech/>



AI Integrated Hardware

Samsung Announces Galaxy S24 with Local Running AI

At CES 2024, Samsung just revealed its latest flagship Galaxy S24 smartphone lineup at the company's Unpacked conference, featuring extensive new AI capabilities for communication, photography, gaming, and more powered by Google's Gemini AI model.

- A Live Translate feature enables real-time voice/text translation during calls in the native phone app without needing third-party software, with the **AI model running locally**.
- The camera system uses AI editing tools to fill in backgrounds and adjust subject position, as well as in night mode and 100x zoom to clarify low light and distant shots.
- Circle to Search allows users to draw a circle around any object in an image or video to get AI-powered information from Google.
- On-device AI enables quicker responses compared to cloud-reliant solutions.

<https://news.samsung.com/global/enter-the-new-era-of-mobile-ai-with-samsung-galaxy-s24-series>



AI Integrated Hardware

Humane AI Pin

In 2024, we will start to see a new generation of AI wearables hitting the market.

The AI-powered lapel pin by Humane, retailing at \$699 plus a subscription for data, aims to reduce dependency on smartphones.

This wearable attaches to clothing and accepts voice commands, touch inputs, or can project information via a laser onto the hand and a unique Laser Ink Display

The device began preorders in November 2023 and is set to release in early 2024.

<https://hu.ma.ne/aipin>



Humane Press Photo



AI Integrated Hardware

Apple Vision Pro Headset

The much anticipated Apple Vision Pro, set for release in the U.S. on February 2, 2024, represents an evolution in mixed reality headsets. It integrates digital content with the physical world through visionOS, an operating system that responds to eye, hand, and voice commands.

The device features a micro-OLED display, custom lenses, and Spatial Audio for enhanced experiences. Notably, it includes an Optic ID for security and is designed to respect user privacy. The Apple Vision Pro, with its unique features, could influence the trend in optical wearables in 2024 and beyond.

While we still believe that mixed reality has had time to mature and is not a new concept to the market, this device (although highly priced at \$3499 USD) could potentially bring an up-tick to the somewhat stale immersive technology hardware industry. Time will tell.

<https://www.apple.com/apple-vision-pro/>



Apple Press Photo

AI Integrated Hardware

Ray-Ban Smart Glasses

In 2024, we will see an upward trend in optical wearables with various baked in AI features.

In 2023, we saw the launch of the [Ray-Ban Smart Glasses](#). Created in partnership with Meta, the glasses combine cameras, speakers and augmented reality technology into a wearable device that allows hands-free access to the internet, allowing users to access the internet using voice control allows them to view and listen to up-to-date information on the spot without interrupting their work.

It features an ultra-wide 12-megapixel camera in the outer corner of each lenses that produces bold images and videos. The cameras record 1080p videos of up to 60 seconds, which you can share with your Instagram and Facebook contacts using AI, voice commands and a quick voice command.



Ray-Ban Press Photo



AI Integrated Hardware

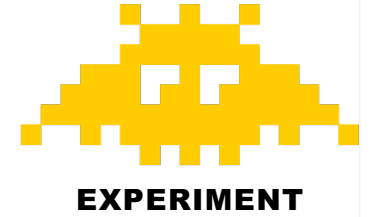
What We Recommend

Based on what we have experienced at CES 2024, the tech industry will be putting significant emphasis on new, specialized consumer AI hardware and wearables in 2024, with some devices showing up on the market in Q1, while other devices are still only in development.

We expect to see a lot of buzz about future devices, in addition to a lot of basic AI integrated hardware hitting the market this year.

The basic fact is that AI is already baked into a large percentage of consumer hardware that is already on the market, primarily mobile phones, watches, and headsets such as the new Apple's Vision Pro and Meta's hardware.

On an enterprise level, AI is already being implemented on a mass scale in larger hardware such as automotive, industrial, farming and construction.



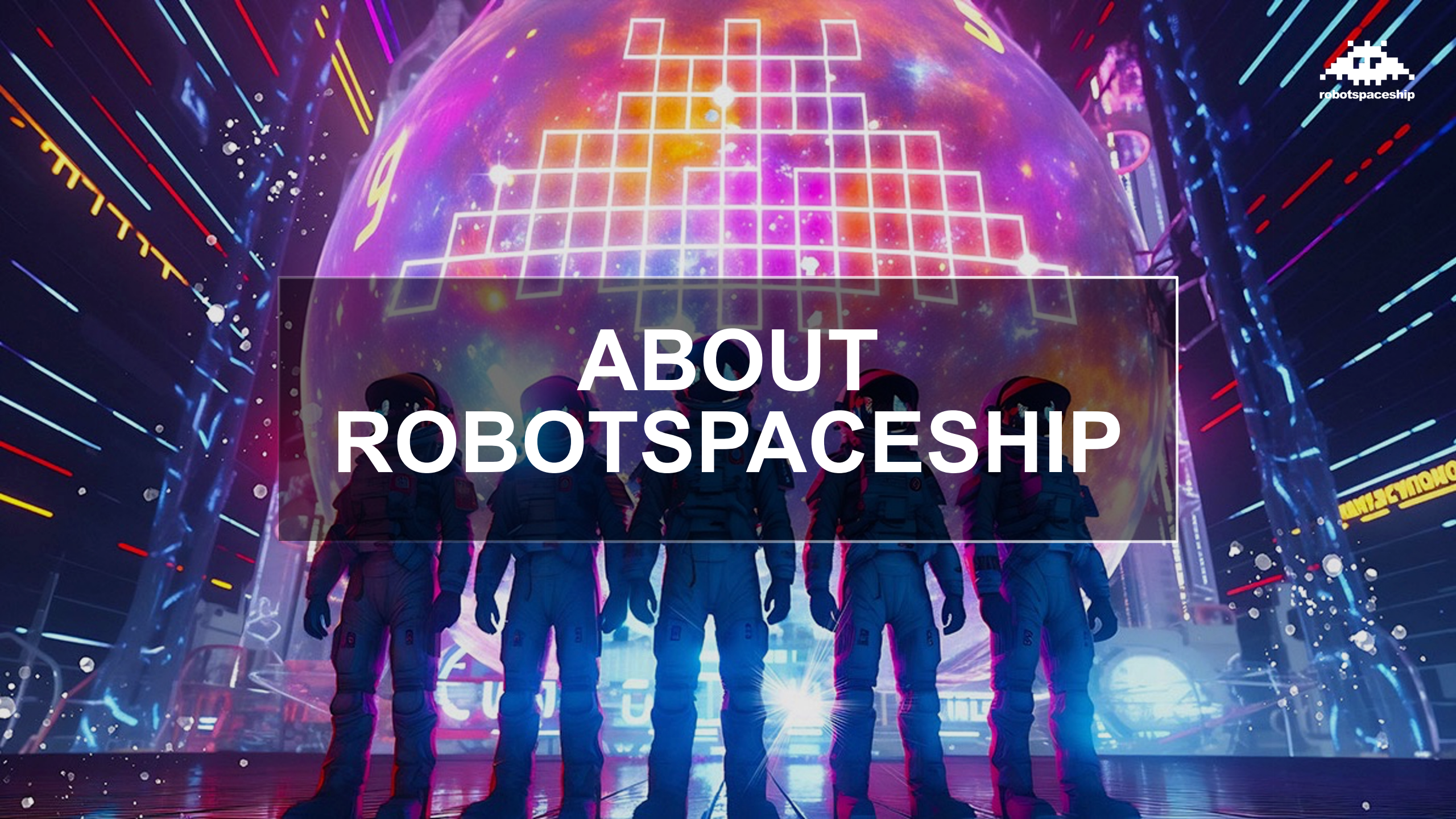
We recommend experimenting with new hardware as much as is affordable, however, we think that we might not see an “iPhone Moment” this year, regarding any “must have” one piece of hardware to rule them all.

Once again, time will tell. Things are moving fast!

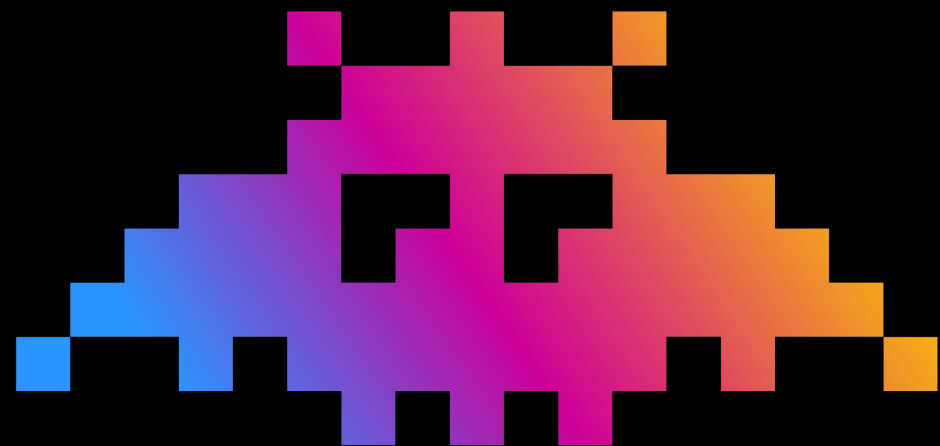
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ABOUT ROBOTSPACESHIP



robotspaceship

robotspaceship is a corporate communications consultancy, magazine, media company & innovation hub.

Our brand represents innovation and our mission is to support and accelerate the development of transformational, disruptive and cutting-edge ideas and technologies

About robotspaceship

- Over 20 Years Exp (Formerly KEMWEB)
- 30 Full Time Employees
- Full Stack, Agile Production Team
- Team Experience in Strategy, Film, AI & Synthetic Media, 3D, Gaming, Game Engines,
- Onsite Innovation Hub & Local Tech Events
- Owned Media Channels
- Newsroom Structure
- Brand essence: Curiosity and agility



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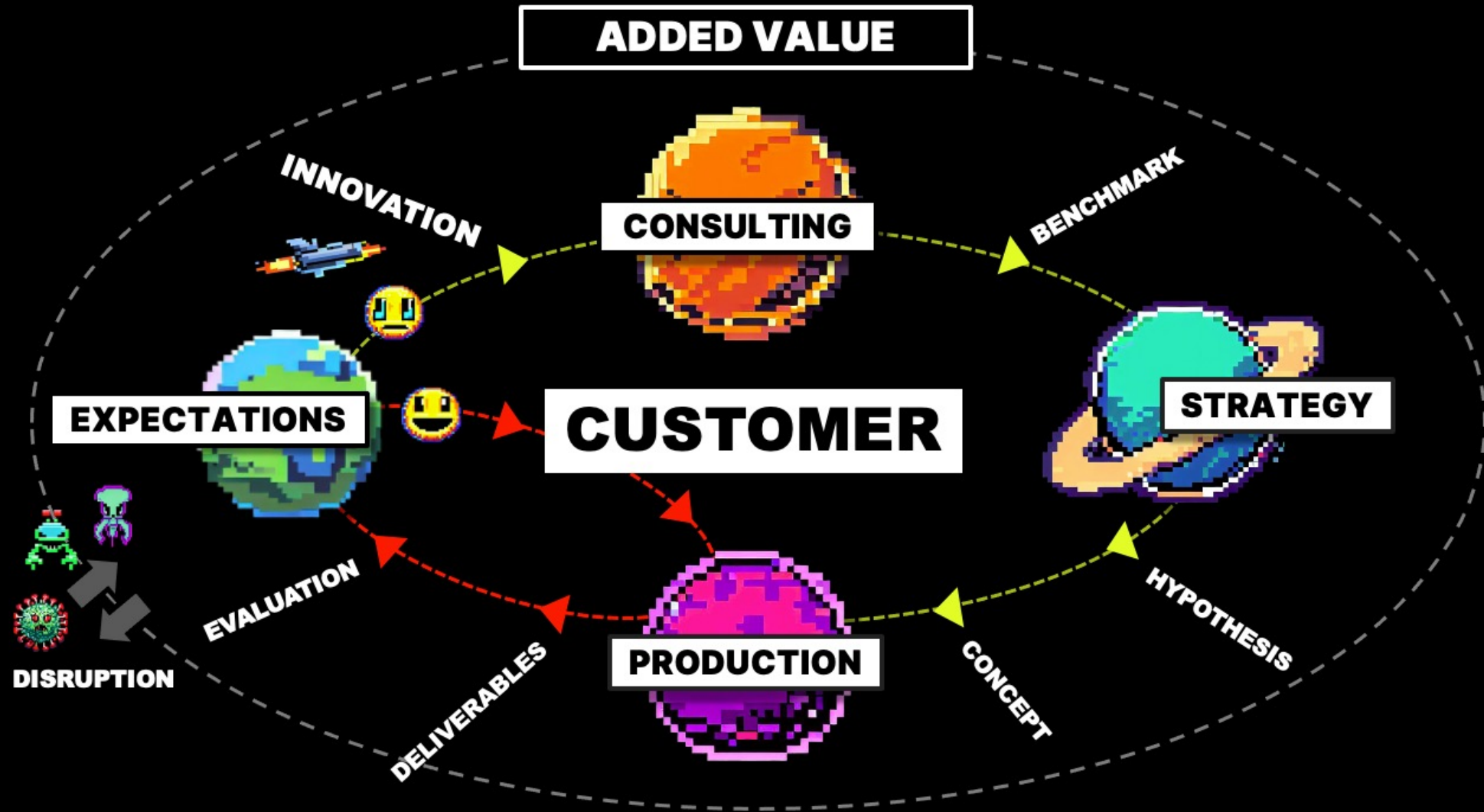
OUR STRATEGY

Storytelling:

**We Help Our Clients to
be Competitive in
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The Circle of Innovation

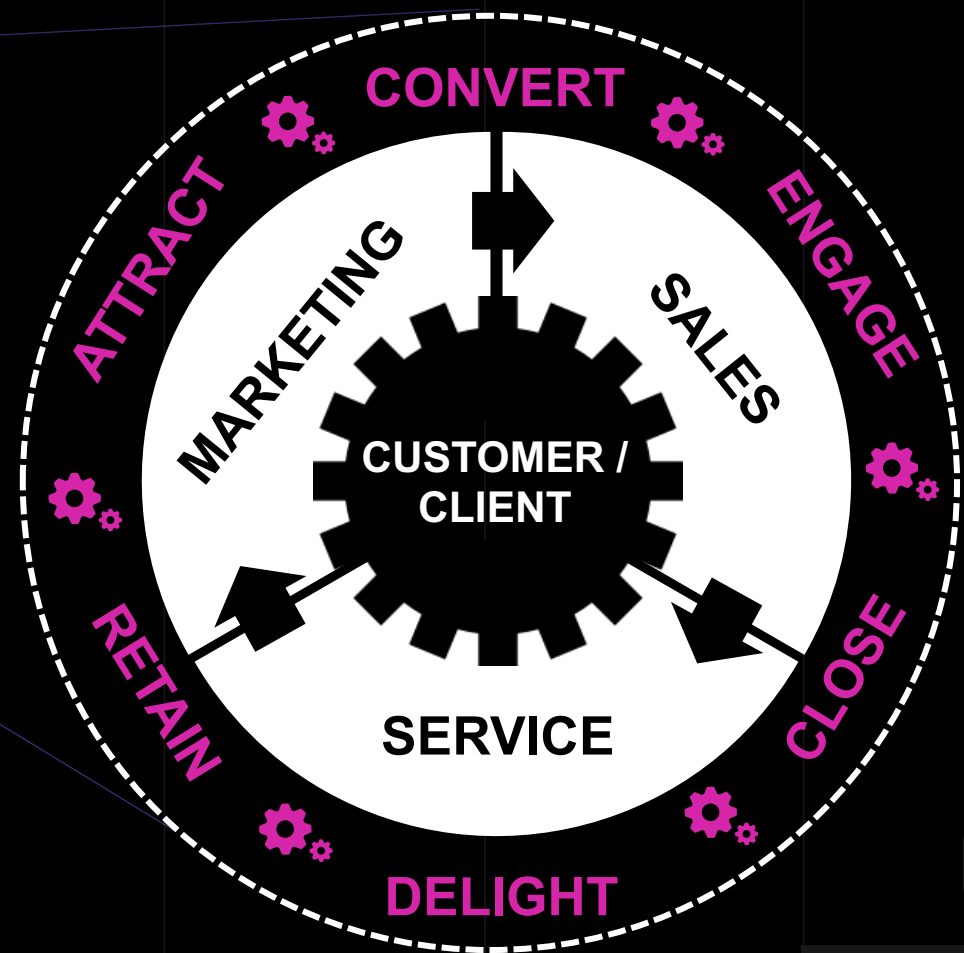


Planet Production: The Flywheel



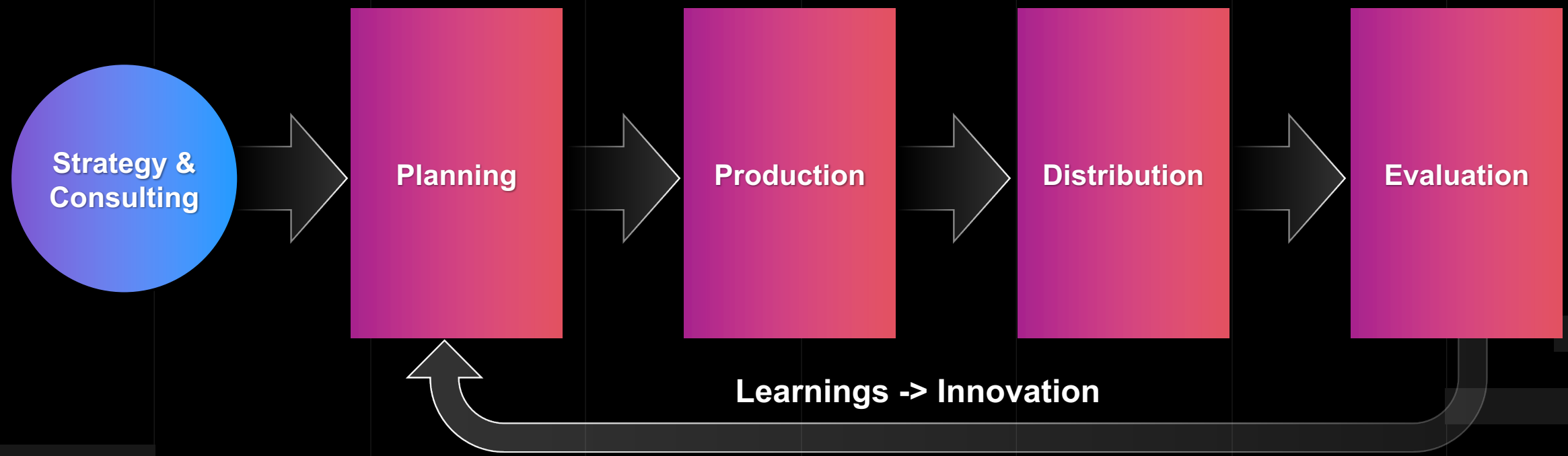
There are countless creators of innovative communications technology, (AI, AR, VR, XR, Metaverse, Synthetic Media, etc) yet the most ignored factor continues to be customer-centric ROI. We are strong supporters of “Hubspot’s flywheel concept” to insure that our client’s content strategy aligns with a solid customer journey.

Does your business have a customer journey? If not, schedule a workshop!



Newsroom Concept:

Our Newsroom Team utilizes a mix of traditional, social, hybrid, AI and synthetic media to target strategic flywheel touchpoints of the customer journey.





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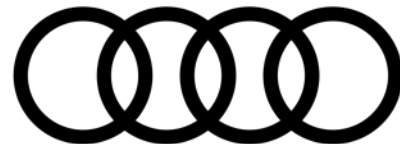
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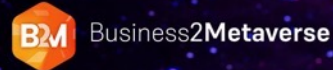
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Awards & Judging

We are often invited to be part of the judging panel for various tech and advertising industry awards. Below are some of the events we have participated in over the last few years.



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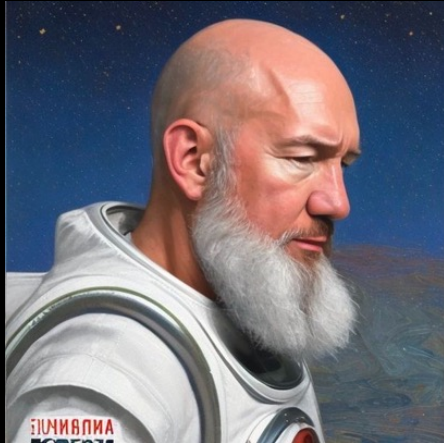



TE SESSIONS AR/VR LOS ANGELES



HOW CAN WE HELP?

Contact



Oliver Kemmann

CEO

T: 0 61 31 – 93 000 – 10

M: 0172-6144884

[oliver.kemmann](mailto:oliver.kemmann@robotspaceship.com)

[@robotspaceship.com](mailto:oliver.kemmann@robotspaceship.com)



Lars Michaelis

CVO

T: 0 61 31 – 93 000 – 32

[lars.michaelis](mailto:lars.michaelis@robotspaceship.com)

[@robotspaceship.com](mailto:lars.michaelis@robotspaceship.com)



Sean Earley

CIO – Chief Innovation Officer

T: 0 61 31 – 93 000 – 43

M: 0177 6542773

[sean.earley](mailto:sean.earley@robotspaceship.com)

[@robotspaceship.com](mailto:sean.earley@robotspaceship.com)



Im Niedergarten 10b

55124 Mainz

T: 0 61 31 – 93 000 – 0

www.robotspaceship.com