

The Future of Content Creation: Embracing AI-Generated Contents

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The Hottest Cool Thing in AI?

Horse \leftrightarrow Zebra



Magic?



“An astronaut
riding a horse in
photorealistic
style”

Text Prompt → Image

Generative AI (AI Generated Content AIGC)



<https://en.wikipedia.org/wiki/DeepDream>

- 1956: The field of Artificial Intelligence (AI) is established, focusing on the development of machines capable of simulating human intelligence.
- ... AI development in various vertical domains...
- 2014: Google introduces DeepDream, a neural network-based algorithm that generates dreamlike images by modifying existing ones.
- 2016: OpenAI, a research organization founded by Elon Musk and others, unveils the first version of its language model, GPT (Generative Pre-trained Transformer).
- 2018: AIGC starts gaining attention across various industries, including journalism, marketing, and creative writing.
- 2019: OpenAI releases GPT-2, a more powerful and advanced language model capable of generating coherent and contextually relevant text.
- 2020: AIGC faces ethical concerns as the potential for misinformation and deepfakes raises questions about responsible use and content authenticity.
- 2021: AIGC continues to evolve, with advancements in natural language processing, computer vision, and other AI subfields, further expanding its capabilities.
- 2022: AIGC tools and platforms become increasingly accessible, allowing individuals and businesses to generate content with greater ease.
- 2023: AIGC finds applications in personalized content creation, virtual assistants, and content curation, transforming industries and augmenting human creativity.

Text → Video

Surreal

Realistic

Stylized

A teddy bear painting a
portrait



Robot dancing in times
square

Cat watching TV with a
remote in hand

Meta AI: Make-A-Video


<https://makeavideo.studio/>






Voice Over

Text to Speech voice over with realistic AI voices

Murf offers a selection of 100% natural sounding AI voices in 20 languages to make professional voice over for your videos and presentations.


**Nate**
English - US & Canada





NUS-ISS offers a wide spectrum of programmes in critical industry disciplines, such as digital leadership, software development, data science, artificial intelligence, cybersecurity, and more.

193 / 200



<https://murf.ai/>
<https://murf.ai/text-to-speech>

Text → Music

Human AI Generative Music

For your video content, podcasts and apps

⚡ Generate a track ▾ Search by reference BETA ✕

1. Enter prompt

a light and sunny mood by the sea side

2. Set duration

00:45

Generate track

or choose:

Genres

Moods

Activities



A light and sunny mood by the sea side

Text-To-Music

130

F#

Track

0:45



<https://mubert.com/render>

Image → Music

Image to Music

Sends an image in to [CLIP Interrogator](#) to generate a text prompt which is then run through [Mubert](#) text-to-music to generate music from the input image!



<https://huggingface.co/spaces/fffiloni/img-to-music>

Text Captions

If player do not work, try to copy/paste the link in a new browser window

CLIP Interrogator Caption: 'a teddy bear painting a picture of a teddy bear, an airbrush painting, screengrab, british stopmotion, wow!, oli on painting'

OpenAI Musical Adaptation: 'You did not use any OpenAI API key to pimp your result :)'

Audio file link: <https://static-eu.gcp.mubert.com/b2b/recorder/imgtomusic/3d80ac788b4d4fb68418002da9991064.wav>

Result



Visual Understanding



Image Captioning

"two cartoon monsters sitting around a campfire"

Visual question answering

prompt = "Question: What is a dinosaur holding? Answer:"

"A torch"

<https://huggingface.co/blog/blip-2>

2D → 3D Visual



**GET3D: A Generative Model of High Quality 3D Textured Shapes
Learned from Images**

<https://nv-tlabs.github.io/GET3D/>

Image → Video

Single image

Pair of images

Input image



<https://makeavideo.studio/>

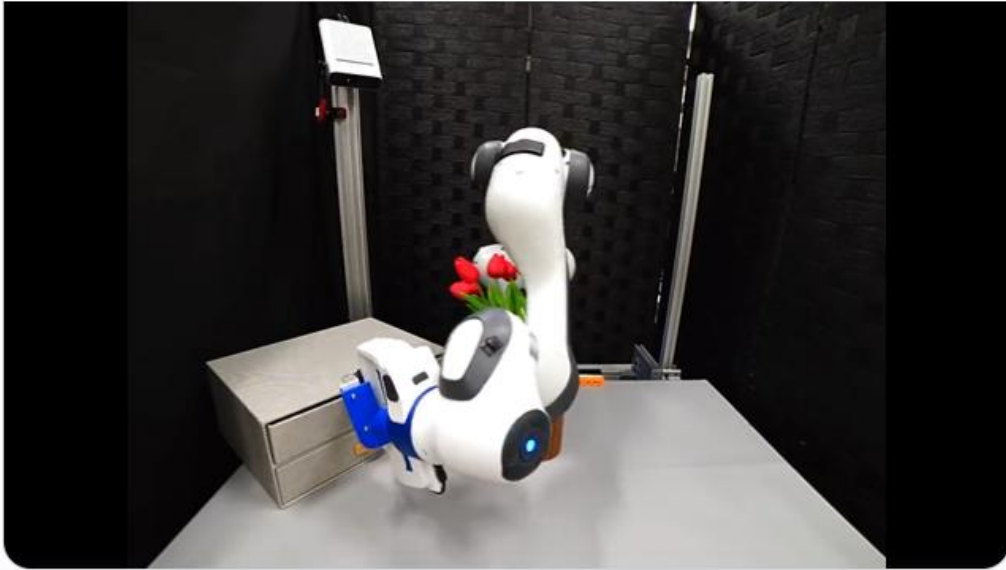
Robotics + LLM/GAI

 **Wenlong Huang** @wenlong_huang · Jul 8

How to harness foundation models for *generalization in the wild* in robot manipulation?

Introducing VoxPoser: use LLM+VLM to label affordances and constraints directly in 3D perceptual space for zero-shot robot manipulation in the real world!

 voxposer.github.io



<https://twitter.com/drfeifei/status/1677510109776465921>



Jim Fan ✓
@DrJimFan

Robotics will be the last moat we conquer in AI. What would a RobotGPT's API look like?

Introducing VIMA, an LLM with a robot arm attached 🤖. It takes in **multimodal prompt**: text, images, videos, or mixture of them.

You can say "rearrange the table to this state" with a **video** as context: "This is a wug <image> and the red wug on the green blicket."

Multimodal prompting makes tasks more flexible for users. With a simple visual goal reaching, one-shot concept learning, and safety constraints, otherwise require a different training.

"VIMA" stands for **VisuoMotor Attention**. It is a Transformer that encodes a sequence of multimodal tokens in the prompt and decodes robot arm control autoregressively. VIMA is an **embodied AI agent: perceiving the environment and taking actions in the physical world**, one step at a time.



<https://twitter.com/drfeifei/status/1683811726377234432>

How does Infineon use Generative AI or AI generated content? Any use case or customer success story?



2 minutes ago

Here is what I currently know

NLM001x: Worst case tolerance of generated DC voltage

Generating 12V supply effectively for the XENSIV™ PAS CO2 sen...

Can I generate a bipolar Vgs using 2EDi drivers?

Technical Support

How does thickness of a phone case affect transferred power?

Show more

Have you found out what you need?

If your required information is not found in the above options, then contact customer support by clicking the button below:

Type your message



Artificial Intelligence at Infineon: A key to our digital future

Semiconductors + AI = Everything is becoming smarter!

Artificial Intelligence is a key technology of the digital age. As a leading semiconductor manufacturer, Infineon is well positioned to fully realize AI's potential in different tech domains. We channel AI's powers towards three major goals:

- AI enables us to offer smart products and services to our customers.
- By using AI in our manufacturing, we can produce our semiconductor solutions faster and more efficiently.
- AI contributes to both - our company goals as well as our societal goals. With the help of AI, we can provide smart and energy-efficiency solutions to the Internet of Things, sustainable mobility and the whole electrical energy chain.

By leveraging AI, we make the world easier, safer and greener!



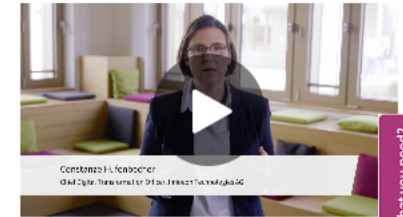
Nico Kelling,
Head of Artificial Intelligence
Center of Excellence at

“ AI is a vital element for Infineon's future. At the Artificial Intelligence Center of Excellence, we connect Infineon's AI enthusiasts to learn faster together. We drive the most exiting AI use cases forward and explore new ways to use AI in every part of our company – as a smart way to run our business and for creating outstanding customer solutions! ”



Video on how AI empowers Infineon's Processes and Products

Share



Found what you need?

Artificial Intelligence

In-Cabin Monitoring

Motor Control

Gateway

Wireless charging

Artificial Intelligence

+ Ekkono

+ Oculli

+ Reality AI

— Teraki

Teraki has successfully implemented its embedded client for Intelligent Signal Processing on the latest generation of Infineon's AURIX™ microcontrollers (> TC3xx), one of the most commonly used real-time controllers in the automotive industry. A demonstration by both companies shows the ability to simultaneously process 50 signals and reduce the data by 95% at low latency at a consistently low percentage of CPU capacity.

Ekkono

AI demos featuring AURIX™

Teraki AI Demo featuring AURIX™ TC3xx Share



Sensor Fusion Teraki: Lidar + Camera Share



Teraki AI-model applications on Infineon AURIX™


<https://www.infineon.com/cms/en/product/promopages/artificial-intelligence/>
<https://www.infineon.com/cms/en/product/promopages/ai-startups/>
<https://www.infineon.com/cms/en/tools/aurix-embedded-sw/AURIX-Applications-software/artificial-intelligence/>

Prompt:

Answer customer query "How does infineon use Generative AI or AI generated content? Any use case or customer success story?" based on below description: "Teraki has successfully implemented its embedded client for Intelligent Signal Processing on the latest generation of Infineon's AURIX™ microcontrollers (TC3xx), one of the most commonly used real-time controllers in the automotive industry. A demonstration by both companies shows the ability to simultaneously process 50 signals and reduce the data by 95% at low latency at a consistently low percentage of CPU capacity. "

The description you provided for Teraki's embedded client for Intelligent Signal Processing on Infineon's AURIX™ microcontrollers showcases the powerful capabilities of their hardware in processing and optimizing data in real-time, particularly in the automotive industry.

To explore how Infineon could potentially leverage Generative AI or AI-generated content with this technology, one could envision the following hypothetical use case:

Hypothetical Use Case: AI-Enhanced Data Compression for Autonomous Vehicles

Infineon's AURIX™ microcontrollers, known for their exceptional real-time processing abilities, can be paired with Generative AI algorithms to further enhance data compression and analysis in autonomous vehicles. In this scenario:

- 1.Data Processing Efficiency:** Infineon's hardware processes a multitude of signals...
- 2.Generative AI Integration:** By integrating Generative AI, the microcontrollers could analyze...
- 3.Data Compression:** With the help of Generative AI, the microcontrollers could compress and summarize data...
- 4.Enhanced Safety:** This AI-enhanced data compression could lead to faster response times...

However, it's important to note that this use case is speculative and based on the potential synergy between Infineon's hardware and Generative AI. Infineon would need to provide specific details about their initiatives in this area, and any customer success stories, if available, would showcase how their technology and AI have been applied to solve real-world challenges.

For the most up-to-date and accurate information on how Infineon uses Generative AI or AI-generated content, I recommend reaching out to Infineon directly through their official channels or contacting their customer support for specific use cases and success stories related to their products.

Prompt:

Provide summary of generative AI or AIGC use cases in semiconductor and microchip controller manufacturers?

Generative AI, also known as AI-generated content (AIGC), is finding various applications in the semiconductor and microchip controller manufacturing industry.

Here's a summary of some key use cases:

Advanced Design and Simulation: Generative AI is used to assist engineers in the design and simulation of semiconductor components.

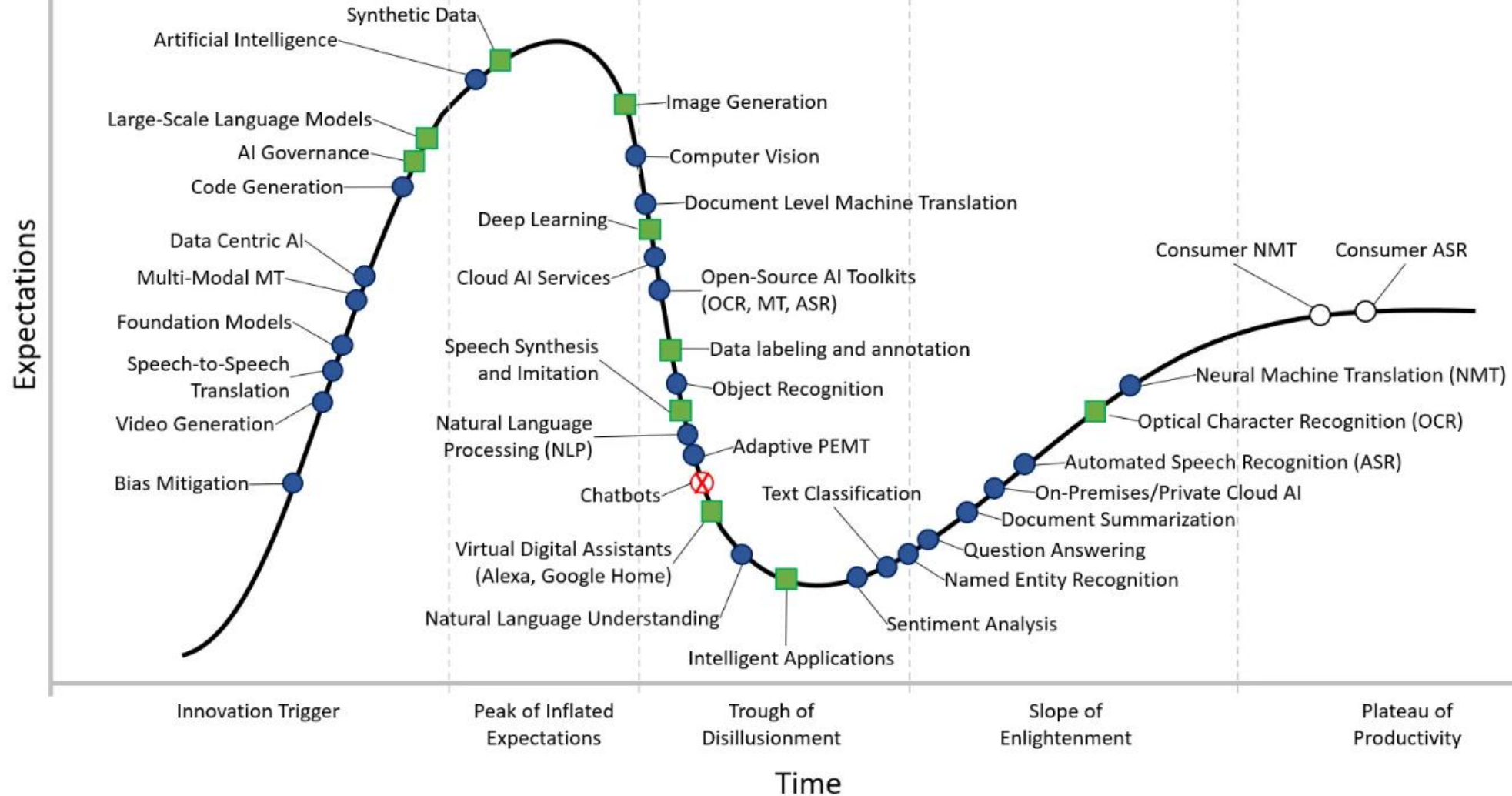
Quality Control and Defect Detection: Generative AI models can generate synthetic images to augment real-world data for training more robust defect detection systems.

Failure Analysis: When chips fail, generative AI can assist in identifying root causes by generating simulations of chip behavior and comparing them to actual data, helping manufacturers pinpoint issues more quickly and accurately.

Energy Efficiency: AI can optimize power consumption in microchip controllers by generating control algorithms that adapt to workload requirements, extending battery life in portable devices.

Omniscien Technologies Hype Cycle for AI Technologies in Business

January 2023



Plateau will be reached:

○ Less than 2 years ■ 2 to 5 years ● 5 to 10 years ▲ More than 10 years ✗ Obsolete before plateau

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