AI

INDUSTRY INSIGHTS

ARTIFICIAL INTELLIGENCE FOR MEDIA & ENTERTAINMENT (M&E)

Within the M&E industry, AI is rewriting all the rules about how to create content in areas such as:

- Generative Design
- Machine Learning From IoT Data
- Accelerated Rendering

Scott Eaton, artist, creative technologist and Lenovo user, is pushing the boundaries of how art is created today, and showing what we can expect in the future as AI technologies become more prevalent in media & entertainment tools and workflows.

GENERATIVE DESIGN

Combining his interests in photography, anatomy and machine learning, Scott has created a generative design solution that is able to understand and represent human form from simple human inputs. By training his AI model on hundreds of thousands of photographs from his database of athletes and figures, his solution transforms an artist's simple gesture drawing or sketch into a high-resolution photographic representation.

> **AI has the potential to help us expand our visual language. Generative AI models are capable of doing sophisticated transformation and interpretations of human inputs, and often give back unexpectedly 'creative' results. These sorts of models will enable a type of creative collaboration between artist and machine that will expand the design space we can explore and thereby broaden our horizon of creative possibilities.**
>
> **Scott Eaton**
> Artist and Creative Technologist

Machine Learning From IoT Data

BELIEVABLE CHARACTERS

Scott consults widely on character design for film and VFX, and expects AI to become a powerful tool in future character pipelines. Currently, there is a high threshold for realism in characters that is challenging and expensive for studios to achieve. Scott expects AI to help make characters indistinguishable from real actors, but at a fraction of the cost and effort, meaning you could use a Machine Learning model to distinguish between types of characters, humans and the difference between what's real and what looks real. In application, this model could be applied to an artist's rough work to help bridge aspects of photoreal character creation.

AI-ACCELERATED RENDERING

Conveying the artist's intention visually is not easy and is extremely time consuming. With the help of AI, rendering speeds can be accelerated by reducing the number of passes required to achieve a noise-free photo-realistic result. Combining NVIDIA's sophisticated AI OptiX denoising algorithm, and powerful Lenovo workstations, users will achieve noise-free renderings up to 20 times faster.

NVIDIA® OptiX™ AI-Accelerated Denoiser

LENOVO WORKSTATIONS FOR AI

ThinkStation

With flexible Intel® Xeon® CPU computing power and the support of new NVIDIA® Quadro RTX™ GPUs, Lenovo workstations can help designers and artists to dramatically boost productivity and create amazing content faster than ever before. Choosing a workstation for AI development and deployment allows you to design, test and refine right on the desktop, without the extra cost as you prototype.

Massive Compute Power

The ThinkStation P900 and P700 Series are built to support dual Intel Xeon scalable processors and up to the new NVIDIA Quadro RTX 8000 graphics inside.

Desktop Flexibility

The ThinkStation P500 Series offers the flexibility of the Intel Xeon W processors with up to 18 cores, along with the ability to support the new NVIDIA Quadro RTX 8000 graphics for additional compute power.

> AI will rewrite how content is made and open up new fields of possibility for content creators. Traditional methods and pipelines will still exist, but they will be augmented with the new potential and workflows that AI will bring. Much like photography freed painting from a purely representational way of making pictures, AI has the potential to unshackle artists and studios from the 'labour of realism', freeing them to iterate more quickly, explore more visual possibilities, and, in the end, work more efficiently and creatively.

Scott Eaton — Artist and Creative Technologist

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