

CRITICAL CROSSROADS

The Impact of Generative AI and the Importance of Protecting the Animation Workforce



INTRODUCTION

Since the founding of The Animation Guild (IATSE Local 839) more than 70 years ago, never have we encountered a situation with such a potentially dramatic impact on entertainment, art and animation as the advent of Generative Artificial Intelligence (GenAI).

We, as a Union, are at a critical crossroads of how we decide to address these dramatic and life-changing repercussions. With the potential seismic impact of GenAI on the creative process comes a responsibility to educate not only animation workers but also the broader entertainment community and employers about the profound implications of GenAI. It is critical to ensure that Union members are equipped with the information necessary to protect their rights and their work.

In order to address these never-before-seen challenges, The Animation Guild (TAG) gathered a task force of animation professionals, spanning the various craft categories in our industry, to study GenAI systems and present our findings to you.

WHAT IS THE AI TASK FORCE?

In April of 2023, The Animation Guild formed the AI Task Force to research GenAI, machine learning, and the ways in which these technologies will potentially impact Union members and animation workers everywhere. The AI Task Force, which is composed of rank-and-file TAG members across a range of crafts, met approximately twice a month throughout the year and invited varied experts and leaders in their respective fields to inform the process, including:

- *Karla Ortiz and Matthew Butterick (a plaintiff and lawyer, respectively, in the lawsuit against Stable Diffusion and other image generators)*
- *Cory Doctorow (author, copyright journalist, and TAG member)*
- *Dr. Darby Vickers (Assistant Professor of Philosophy at the University of San Diego)*
- *Sarah Myers West (Managing Director of the AI Now Institute)*
- *Jaron Lanier (computer scientist, visual and musical artist, author, and technologist)*

The AI Task Force also partnered with the Concept Art Association (CAA) to commission a comprehensive report on the economic impact of AI on the entertainment industry that surveyed 300 business leaders. This report clearly illustrated the true scope of how employers hope to utilize this technology.

BY THE NUMBERS

Many animation studios are early adopters of GenAI systems, and the projected impact may lead to a massive displacement of animation jobs. According to the survey results from *Future Unscripted: The Impact of GenAI on Entertainment Industry Jobs* that polled creative industry executives, the impact is dramatic and will come at a cost to animation workers. The most impacted animation crafts include: character and environment design, 3D modeling and compositing, and animation and rigging.

78%

of firms engaged in animation will be early adopters of GenAI in the next three years

51%

expect to use GenAI to develop 3D assets

41%

expect to use GenAI to create 2D artwork

33%

expect to use AI in productivity organization and management

25%

expect to use GenAI for writing film and TV scripts

Entry-level positions will be most susceptible to consolidation or elimination. AI systems are likely to disproportionately affect those from less affluent backgrounds and underrepresented communities who have traditionally used these roles as a means toward economic mobility.

IMPACT ON THE INDUSTRY

AI text-to-image software requires both text and image data to function. The quantities of such vary, but for a broad strokes product that can generate anything like Stable Diffusion, billions of text tagged images are used. While the data sources for privately-owned software like DALL-E are not publicly known, the open-sourced Stable Diffusion was trained on the largest public source of images, LAION-5B, a database originally created for academic research purposes.

These images were scraped from the internet without consent, and with no traceable way to credit or compensate the owners of the images. All GenAI software, private or public, uses text tagged image datasets to analyze, and find patterns within the correlations of its images and their corresponding text tags. This process is called "training" and results in a "model." For more details on AI-related terms, see [TAG's online AI Glossary](#).

It's important to note that the AI model generates this statistical image approximation not directly from the original dataset but from an internalized understanding of inherent patterns. Once it has been trained, it does not rely on data or a database to generate images from text. This is critical to understand because even though a

model no longer relies on data itself, it means that the ethics by which the model was created are baked into the model. There is an inherent dishonesty in using a model trained by peeking over the shoulders of others without them knowing.

GenAI applications and programs use these datasets and models to create outputs that can target most of the job categories of TAG members, spanning from design to production, animation to scriptwriting. As more GenAI products are regularly released, current GenAI generators are sure to mature and become more capable.

Currently, 3D models can be generated from images and concept art at a basic level, and some of the most capable programs can create full-color 3D sets from images, though the movement within the resulting set is limited at this time. GenAI that targets visual development, background painting, and 2D layout are among the most advanced systems. Blue sky concepts can be created from text or a combination of text and images, and loose sketches can be turned into full-color renderings. These examples are just a small sample of potential applications. The chart below provides an overview.

	TEXT	AUDIO	VISUAL
DESCRIPTION	Text-oriented GenAI programs help generate, alter, contextualize, or summarize information using text-to-text and text-to-speech prompts. They can be used for administrative purposes (such as generating a summary of a script or generating routine emails) as well as for creative endeavors (like generating a storyboard or storylines). In addition, these technologies are often employed to answer complex or technical questions.	Audio GenAI programs, platforms, and technologies facilitate the manipulation of existing sounds and the development of new ones. Typical use cases include the generation of a new song or melody (text-to-audio) or voice generation for musical, dubbing, or narrative applications (audio-to-audio or text-to-audio). Applications such as Deep Composer, for example, allow users to generate melodies within seconds via a series of prompts.	Visual-based GenAI programs allow users to generate or modify images. Outputs can be "new" works generated from existing assets (text-to-image), alterations or enhancements (image-to-image), or transformations from one medium to another (image-to-video). These technologies make it possible, for example, to upload landscape photos to virtual production screens in seconds or speed up rotoscoping in post-production.
SAMPLE TECHNOLOGY	<ul style="list-style-type: none"> • ChatGPT • Azure AI • Bard AI • Chatsonic • Storyboard.ai 	<ul style="list-style-type: none"> • Deep Composer • AudioCraft • Stable Diffusion • Jukebox • Dance Diffusion 	<ul style="list-style-type: none"> • DeepDream • PhotoSonic • DALL-E 3 • Midjourney • Big Sleep
SAMPLE TASK APPLICATIONS	<ul style="list-style-type: none"> • Script Writing • Storyboarding • Task Organization • Task Management • Tools Programming 	<ul style="list-style-type: none"> • Sound Editing • Sound Design • Voice Generation • Voice Cloning • Audio Translation 	<ul style="list-style-type: none"> • 3D Modeling • Storyboarding • Animation • Concept Art • Visual Effects
PROMPT TYPES	<ul style="list-style-type: none"> • Text-to-Text • Text-to-Speech 	<ul style="list-style-type: none"> • Text-to-Audio • Audio-to-Audio • Speech-to-Audio 	<ul style="list-style-type: none"> • Text-to-Image • Image-to-Image • Image-to-Text
INDUSTRY USAGE*	68.7%	38.0%	76.7%

* Share of businesses in the six entertainment industries surveyed.
Source: CVL Economics Survey (N=300)

ADDRESSING THE CHALLENGE

Addressing the impact of GenAI and ensuring the endurance of human-made art and labor in animation will require a multi-pronged approach. Public policy, organized labor, public pressure and awareness campaigns will play critical roles in establishing safeguards. The AI Task force recommends:

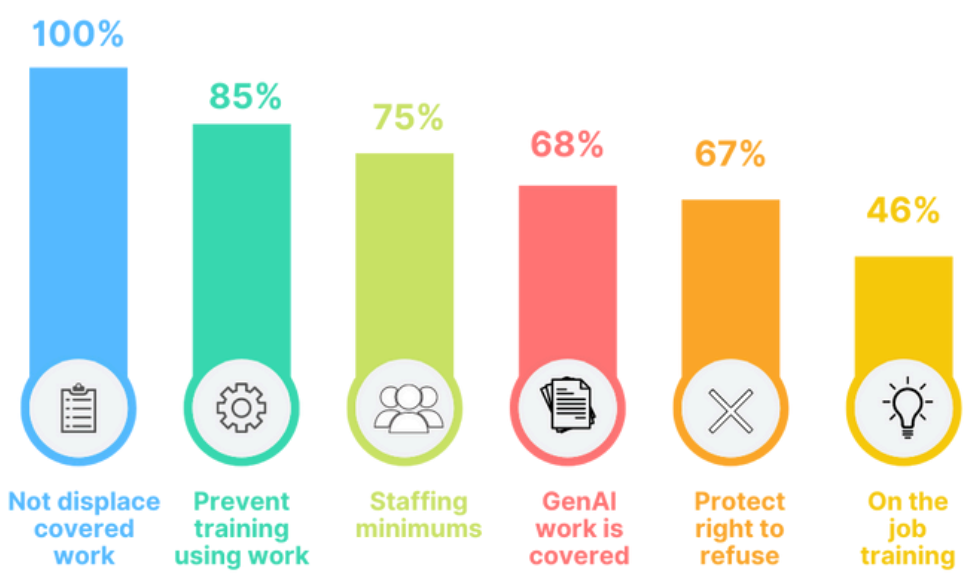
- Secure protections in the TAG Master Agreement and subsequent collective bargaining agreements.
- Develop and distribute internal guidelines and toolkits to help TAG members protect their work and understand their rights.
- Advocate and lobby for legislative and regulatory protections provided by state and federal governments.
- Advocate and lobby for tax incentives to support human-made art.
- Develop and produce public service and awareness campaigns to address the negative impact of GenAI and promote human-made art.
- Evaluate employer-funded reskilling and training programs to adapt, if necessary, to GenAI technology.
- Monitor and review all instances of GenAI usage in TAG signatory studios and strictly enforce all applicable contract provisions.
- Collaborate with partner organizations, such as the Concept Art Association, and other entertainment Unions to host informational sessions and contract literacy workshops to educate workers on the nuances of their personal services contracts and other legal documents or disclosures.

IDENTIFYING TAG MEMBER PRIORITIES

In March 2024, TAG members received and responded to an AI Survey focused on understanding Union member priorities and concerns. Sixty-seven percent of respondents did not feel favorably about GenAI being used in the workplace, and another 61% of members said they were extremely concerned about GenAI negatively affecting future job prospects.

Top member priorities include:

- Adding provisions to the CBA that prohibit the use of GenAI to replace covered work. (100%)
- Preventing studios from using TAG member work to train GenAI models. (87%)
- Advocating for staffing minimums and/or guaranteed weeks of employment as a means to address GenAI displacement. (75%)
- Ensuring any new GenAI-related work is covered by the CBA. (68%)
- Protecting members if they refuse to use GenAI technology. (67%)
- Indemnification from copyright infringement cases, protecting members from adverse impact on workplace diversity and entry-level jobs, and forcing studios to disclose datasets they use. (60%)
- Advocating for paid on-the-job training for new roles utilizing GenAI. (46%)
- A majority of members also said they would be interested in TAG-hosted informational panels on issues relating to GenAI and educational seminars on copyright, contract literacy, etc. Members also expressed interest in an expert speaker series on different aspects of AI.



1

LABOR & COLLECTIVE ACTION

Workers, being the backbone of the animation industry, must have a seat at the table when decisions are made about the integration of GenAI systems into their workflow. Including workers in the process ensures that their well-being and rights are not compromised in the pursuit of enhanced productivity. Through collective bargaining, we must negotiate protections for TAG members, such as job security, intellectual property rights, and fair compensation in the context of GenAI.

While TAG is a Local of the International Alliance of Theatrical Stage Employees (IATSE), we negotiate our contract separately. The gains made by IATSE in the Basic Agreement, and the contract language secured by the WGA, SAG-AFTRA, and AFM, serve as a foundation for our negotiations. However, as a multi-craft, animation Union, we must adapt those gains to meet the unique challenges posed by GenAI in animation, from requiring studios to disclose if GenAI was used on a production to preventing the use of members' work to train AI models. Specific contract proposals addressing GenAI usage and protections cannot be publicly shared at this time due to active bargaining. With that said, the priorities identified by the membership are the foundation of TAG's AI-related proposals.

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LEGISLATIVE ENGAGEMENT

Federal and state legislation, governmental agency regulation, executive orders, and court cases have the potential to impact the implementation of GenAI via much-needed protections. With Concept Art Association, AI Task Force members participated in meetings with the staff of Federal Representatives and Senators and California Assembly Members and Senators to highlight the labor concerns surrounding GenAI.

On a legislative level, we recommend that TAG continues to track and support existing and proposed legislation that addresses AI, monitor regulations that set guidelines before problems occur, assess legislators behind AI legislation, and advocate for tax incentives to promote human-made work.

FEDERAL LEGISLATION

The average time for a bill to go from its introduction to being signed by a president is seven years, which is less than ideal given the fast pace of technological changes. However, congresspeople are increasingly aware of the urgency of the issue:

- [S.1993](#) would limit certain federal liability protections, meaning that GenAI companies could be held liable for content generated by their users.
- [S.3312](#) seeks "to provide a framework for artificial intelligence innovation and accountability," notably mentioning establishing a means of provenance.
- [H.R.7197](#) seeks to study the environmental impact of artificial intelligence systems.
- [S.3205](#) and [H.R.6936](#) would require federal agencies to use established risk management framework when using AI.

EXECUTIVE ORDERS

[President Biden's Executive Order](#) contains significant language about fostering development of AI. It also acknowledges the risk to Americans' privacy and dangers such as job displacement.

[Governor Newsom's Executive Order](#) requires the government of California to produce risk assessments, cybersecurity guidelines, and pilot programs with the goal of cultivating GenAI development in California to "harness the potential of GenAI" while seeking to "mitigate and guard against a new generation of risks."

AI INSIGHT FORUMS

Senate Majority Leader Chuck Schumer has held nine "AI Insight Forums" to build consensus on how the United States Congress should craft AI legislation. Based on the forums a bi-partisan senate AI work group published [Driving U.S. Innovation in Artificial Intelligence: A Roadmap for Artificial Intelligence Policy in the U.S. Senate](#). Click here for the [one-page summary](#).

STATE LEGISLATION (CALIFORNIA)

As of the date of this report, 33 AI-related bills have been introduced in California's 2023-24 Session covering a variety of topics.

Four bills have passed the legislative bodies and are moving to the governor's desk: [AB-2013](#) requires companies to disclose the training data used in their AI systems on their websites; [AB-2602](#) requires a performer to receive legal counsel or Union representation if digital voice or likeness will be implemented; [AB-1836](#) codifies that a deceased person's likeness cannot be implemented without proper consent; and [AB-3048](#) makes it easier to opt out of having your information taken and sold. Other bills, like those involving watermarking, are not proceeding at this time. While copyright is a federal issue, there is precedent for California regulations impacting national trends.

3

TAX INCENTIVES

Animation is not part of the California Film & TV tax incentive. However, last year, the LA County Board of Supervisors approved research to develop an incentive program for LA County, and that program will include animation. Additionally, the City of Burbank included an Animation Tax Incentive in their five-year economic development plan. TAG's Political Coordinator Leslie Simmons will be forming an [Animation Incentive Task Force](#) to push for incentives on the state, local and even federal level that support human-made art.

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REGULATORY AGENCIES

Regulation on GenAI could come from the Federal Trade Commission and Copyright Office. These avenues could provide faster oversight than waiting for laws to make their way through legislative bodies.

THE FEDERAL TRADE COMMISSION

The Federal Trade Commission (FTC) enforces federal consumer protection laws that prevent fraud, deception and unfair business practices. FTC Chair Lina M. Khan wrote in *The New York Times* that AI technology is not exempt from existing rules, and the FTC “will vigorously enforce the laws we are charged with administering, even in this new market.” In addition, the FTC’s [AI In Creative Fields Panel Discussion](#) acknowledges concerns ranging from data collection without consent to artists competing for work with AI.

THE COPYRIGHT OFFICE

While workers in the animation industry rarely hold the copyrights to our work, regulation regarding copyright is an important component in addressing AI-generated material, particularly images and authored works. The law recognizes copyright only in works “created by a human being.” Both TAG workers and studios that employ them would be wise to consider the likely inability to file copyright for any material generated from AI products. The Congressional Research Service has an excellent report on copyright and AI, available [here](#).

5

PUBLIC PRESSURE AND AWARENESS

We believe it's important to engage the entertainment viewing public through targeted public awareness campaigns that highlight the irreplaceable value of human artistry in the creative process. These campaigns can include member video testimonials, public service ads, and social media graphics emphasizing the unique artistry and emotional depth brought by human animation workers. Establishing open lines of communication with the press is essential to address the broader impact of GenAI on the animation industry. Recommendations include:

- Launch public awareness campaigns to educate the public on GenAI impact in animation.
- Develop public service ads, social media graphics, and memes to advocate for the industry.
- Utilize member video testimonials to highlight the impact on real people.
- Continue creating impact reports to share with legislators and regulation agencies.
- Initiate a label campaign for AI-generated content so the public can distinguish human artistry and labor.
- Engage with media outlets to raise awareness of the industry's challenges.
- Create and distribute recommendations for entertainment workers at non-Union studios.

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LEGAL CONSIDERATIONS

Court cases and appeals are a long road, but extremely important as the rulings from these cases establish important precedents that will likely inform legislation around GenAI and copyright. It is important to remember that the copyright holders of work done by TAG members for studios almost invariably resides with that studio. That said, there are cases whose outcomes could impact the work done by TAG members, including:

- Litigation filed on behalf of artists Sarah Andersen, Kelly McKernan, and Karla Ortiz against GenAI companies Stability AI, DeviantArt, and Midjourney for their use of Stable Diffusion, whose products rely on data from the plaintiffs and are capable of generating work in their respective styles.
- Litigation filed on behalf of authors including comedian Sarah Silverman against ChatGPT, LLaMA, and other AI text generators.
- The Author's Guild and 17 notable authors filed a lawsuit against OpenAI and Microsoft for training on their work without offering choice or compensation.

CONCLUSION

The AI Task Force has focused on understanding the potential disruptions that GenAI could cause to the animation industry, particularly concerning job security and the unethical use of GenAI in creative processes. Our research highlights the potential risk that GenAI systems pose to animation workers, underscoring the need to be involved in discussions and decisions about GenAI to protect our rights and the integrity of our work.

We have also identified key priorities for our Union, including preventing the use of GenAI to replace Union-covered work, protecting against the exploitation of member work in training GenAI models, and advocating for job security measures. The AI Task Force recommends a multi-faceted approach to address these challenges, including collective bargaining, policy advocacy, and public awareness campaigns to highlight the value of human creativity and labor.

Additionally, we will continue to engage with legislative bodies and regulatory agencies to push for protections and guidelines that ensure GenAI is not used to undermine the animation workforce. Through these efforts, TAG aims to ensure that the industry adapts to AI advancements without sacrificing the rights and jobs of its workers.

For more information about the TAG AI Task Force and its members, or to submit a question or a comment, visit animationguild.org/ai-and-animation/. Report any GenAI usage to TAG's Business Representative, Steve Kaplan (steve.kaplan@tag839.org).

COPYRIGHT VS. FAIR USE

The gist of the arguments of the lawsuits against AI companies is that training a GenAI model on copyrighted work without permission is copyright infringement. The companies will likely argue that transitional, temporary copies for analysis are not infringement, nor is embedding that analysis in software. The companies lean heavily on the idea of "fair use" and a vague idea of "publicly available." Other factors include rulings on fair use that are "transformative."

Courts may also review whether, and to what extent, the unlicensed use harms the existing or future market for the copyright owner's original work. In assessing this factor, courts consider whether the use is hurting the current market for the original work (for example, by displacing sales of the original) and/or whether the use could cause substantial harm if it were to become widespread.

Because the outputs of GenAI systems could deliberately or inadvertently be in close proximity to previously copyrighted work, the TAG AI Task Force believes it would be wise for studios and members to avoid the use of GenAI products on productions. We recommend drafting a letter to studio labor relations departments explaining the pitfalls of using GenAI material with regard to their ability to copyright intellectual property, and we advise TAG members to join or support ongoing class-action suits.



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