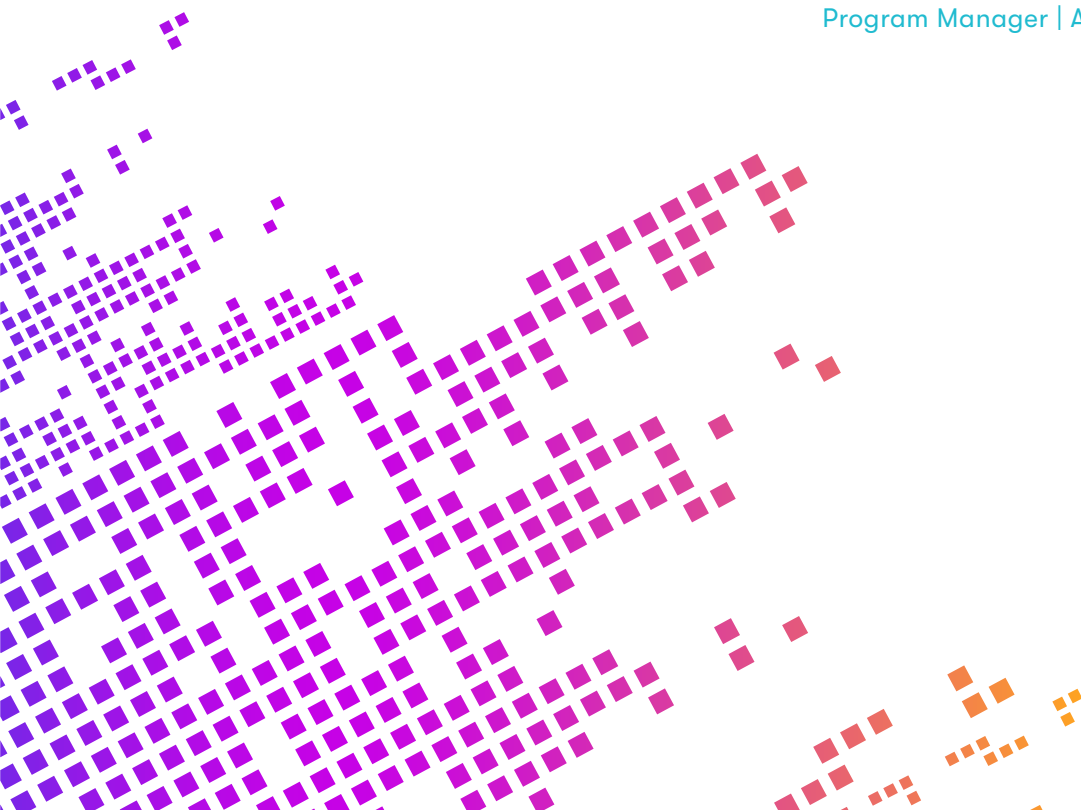


As a leader in the media technology field, Avid recognizes the immense potential and accompanying uncertainties of AI. Grounded in the belief that stories are the essence of human connection and creativity, Avid presents the following whitepaper on the responsible use of AI.

Avid's Guide for Responsible Use of AI for Creative Professionals

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*We were born storytellers.
Story has always brought people together.
Stories engage us. They inform us. They enlighten us.
As long as there are people, there will be stories.
And as long as there are ideas to share, there will be storytellers.*

- “The Avid Story”

Welcome to Avid’s whitepaper on the Responsible Use of AI for Creative Professionals.

Based on Avid’s internal guidelines for responsible AI, the purpose of this whitepaper is to present a framework for creative personnel in our customer community to support the responsible and ethical use of Artificial Intelligence and Machine Learning (AI/ML) to tell their stories – both audio and visual.

AI/ML technology is rapidly evolving – and with it, our collective thinking about creating compelling content for our stories. With AI, all creative professionals – people in creative roles, on productions in studios and broadcasting, in the media and entertainment (M&E) industry as a whole – are changing the way we think about the creative process.

The recent emergence of groundbreaking AI tools and platforms have shown unquestionable potential to foster creativity and improve the way people in the industry work. But this potential – to minimize mundane tasks, to streamline collaborative efforts, to empower creatives to focus on quality storytelling – also comes with much uncertainty. The risks – to industry roles, in employment opportunities for creatives, to the worrying prospect of AI minimizing and devaluing human decisions – need to be considered carefully as changes emerge. As an industry leader in M&E, the fact that there are no universal AI standards or policies also underscores the importance of Avid’s ability to account for the impact of AI in our products and solutions.

Despite the challenges, the importance of continuing to create inspired content related to the human experience compels all of us in the field to think beyond fear – and trust that AI can help empower people in the art of storytelling.

Avid and Responsible AI

*And that’s where Avid comes in.
We played supporting roles in the world’s greatest movies.
We became an instrument in the hands of engineers to craft the world’s most-loved music.
We helped broadcasters reveal history’s biggest moments.
We helped artists captivate audiences with unforgettable live performances.*

- “The Avid Story”



Ever since Avid led the revolution in non-linear editing almost forty years ago, we have become a leading technology provider that powers storytelling in the M&E industry. Our popular media technology products and solutions such as [Media Composer®](#), [Pro Tools®](#), [Sibelius®](#), and the [MediaCentral®](#) platform are used in production and post-production facilities, film and recording studios, broadcast groups, and live-sound performance venues around the world.

Avid has continued to invest heavily in research and development for advanced technologies such as AI through our [RADLab \(Research and Advanced Development\)](#). Employing processes for rapid ideation, feasibility, prototyping, and eventual productization in our products and solutions, Avid has been able to develop innovations such as our [Avid Ada](#) digital assistant, with the exciting promise of much more on the horizon. As the field continues to evolve, we believe that AI will impact Avid’s valued community of creatives in an extraordinarily special way; by envisioning and delivering groundbreaking and innovative solutions such as Avid Ada, our goal is to manage that impact by using our research to fundamentally improve the way creative professionals work.

That is the key: ***Avid is a creative company above all things – FOR creatives BY creatives***. For us, it’s not just about product, process, procedure, business, enterprise, dollars, and data governance. ***Creativity is our way of life***. With over one million creative professionals and thousands of enterprise media clients relying on our products and solutions, we believe we have an opportunity to help our community chart a responsible path through the changes from advancements in AI. This whitepaper is Avid’s take on how to do that.

Fundamental Principles

*We’ve come a long way from telling stories on cave walls and around campfires. Today, ideas travel on IMAX® screens and electric guitars, in reality TV and live concerts. In digitized sheet music and streamed video. Technology continues to bring us all closer together. Yet one thing will never change:
OUR NEED TO EXPRESS OURSELVES AND SHARE THE HUMAN EXPERIENCE.*

- “The Avid Story”

[Feedback from our community of creative professionals](#) — our valued customers, partners, and employees included — expressed concerns about the social, legal and ethical implications of AI usage in telling their stories. As an industry leader in media technology, Avid is committed to upholding the highest standards in our products and solutions: it is essential that we proceed carefully when releasing the latest products to our creative community to ensure we all are aware of the implications of using AI technology.

Our position on responsible use of AI is based on the following **Fundamental Principles**, which can form a basis to navigate through the opportunities and challenges offered by developments in the field:

- **Safety.** Does the use of AI ensure the safety of the creatives, the organization they're in, the audience they're telling the story to?



- **Privacy.** Does the use of AI ensure the privacy of data used by the creatives and the organization they're creating for?
- **Fairness.** Does the use of AI ensure stories that treat all people fairly, without discrimination, empowering and engaging everyone?
- **Reliability.** Does the use of AI consider context of its usage, ensuring stories that accurately uphold its quality throughout the life of the story?
- **Transparency.** Does the use of AI provide explanations for proper use that is understandable to the story consumer, with adequate facilities to trace and audit where the story comes from?
- **Accountability.** Does the use of AI ensure stories that comply with expanding standards and legislation in all applicable jurisdictions?
- **"Human-in-the-Loop."** Perhaps most importantly: does the use of AI benefit the creator by supporting and assisting – but not replacing – human decisions in the creative process?

Avid believes it is vital to ground our collective work in AI with these principles to ensure that in telling your stories, values that support the creative community are upheld. We think that it is simply the best way to provide our community with the right resources to continue on their creative journey.

Guidelines and Best Practices

*Our tools have been called groundbreaking, innovative, essential.
Digitizing the workflow brought the world to our door.
We made professionals more productive.
We changed an industry and helped our customers win their highest awards.
We helped entertain and enlighten.
WE BROUGHT JOY.
The professionals who trusted us with their careers have given us a new challenge...*

- "The Avid Story"

Principles are one thing: putting them into practice can be a challenging proposition when faced with real-world issues, choices, and limitations.

The following are specific **Guidelines and Best Practices** Avid is taking to support our goal for the responsible use of AI. These have been defined with direct references to our Fundamental Principles as outlined above, along with practical examples used by our teams at Avid – which illustrate our commitment to our customers that all the products and solutions Avid releases will support best practices for use of AI.

Beyond the release of the product, there is an even greater opportunity for the entire creative community. We encourage all creative professionals – as the final arbiter of the story – to adopt a **shared responsibility** mindset by taking actions to support the responsible use of AI. Using the guidelines and best practices below are a great starting point in releasing their stories to the world with AI generated content.



Risk-based Approach

Risk-based approaches are nothing new. They've been in use for a long time — both by technology and product development groups in areas such as information security, and in studio and broadcast productions employing creative professionals.

Traditional techniques such as **threat analysis** are used to identify risks to any given project or production. **Risk classification** based on probability and severity, and **business acceptance criteria** are commonly established tools that can be used as part of your risk mitigation toolbox — all of which can serve to uphold principles of customer **Safety, Privacy** and Human Ownership (“**Human-in-the-Loop**”) during the creative process. At Avid, we employ these tools and techniques as part of our internal **product lifecycle management (PLCM)** and **software development lifecycle (SDLC)** processes in order to assess risks to our customers in using AI when designing, validating and shipping our features and products.

Keeping in mind that some AI models do not have deterministic behaviors, product decisions that follow a risk-based approach are of foremost concern to our product designers. An example of how this guideline is used in our products includes **user interface (UI) design** that enables manual checks if business risk for the creative outcome is deemed to be high, and full automation if the risk is acceptable. An important consideration is the ability to manually turn off a given AI feature — a feature that is factored in our product design that can prevent automated content generation when deemed high risk.

By definition, all storytellers take a risk in releasing their stories to the world; risk to the creative process is ultimately based on probability and severity identified by the very people who are using AI. Beyond Avid's efforts to develop our product responsibility, we encourage creative professionals to take a shared responsibility in mitigating risk to the story by employing their own approaches — using their own business modeling, acceptance testing, and test procedures — to identify any corresponding mitigation steps. Together, we can address risks of all kinds for creatives and their audiences in the course of telling the story.

Human Ownership of AI Decisions

Maintaining human control and ownership for creative decisions is a critical consideration for content generated by AI technology. Upholding the fundamental principle of [Human-in-the-Loop](#) is in-line with the popular industry concept of AI as a “**Copilot**” (as opposed to “The Pilot”): the Copilot concept has become central for any creative professional using AI in their stories, ensuring that any generated content is not simply used as is and without context, but simply as **input that ultimately supports human decision and action**.

Avid — as with many organizations specializing in technology development — features established **quality control (QC) processes** from both the technology and media production standpoint. Properly enabled QC processes ensure that all content generated by an AI source is thoroughly reviewed before final implementation in a product release.



Another example from a product design perspective is exposure of generative AI functionality through features such as [creative assistants](#), [recommendation engines](#), or [auto-complete](#) – all capabilities that put the user in charge where there is a risk that the AI system could misinterpret the user’s intent. As AI extends beyond generating simple content into the area of [command execution](#), the danger here could result in actions not intended by the user – for example, unintentional generation of a command that could accidentally delete your content. Our product designers are required to use responsible AI principles in UI design that keep **“Human-in-the-Loop”** during the process – for example, enabling end-users to manually accept or reject an action suggested by the AI feature.

Designing features that incorporate human ownership to oversee the storytelling process greatly lowers the risk of the story itself being compromised by faulty or inappropriate data and actions. The upshot is that the creative professional must make the final decision when using AI in telling their story. Maintaining human ownership of AI decisions is vital to ensure that creative outcomes are driven by **“Human-in-the-Loop”** – as opposed to the tool or the technology itself.

Attribution

Ideally, any data or AI models used are fully explained and understandable – or at the very least trained using properly licensed content. In media production, it is already standard practice to attribute content used in a creation or production: use of attribution in the context of responsible AI is the process of ensuring that data and models we use for our products and solutions adhere to the principles of **Transparency**, **Reliability**, and **Accountability**.

At Avid, we strive to ensure that attribution for the content used for a particular outcome is fully evaluated to ensure the ownership of the output is not contested. This includes content generated by third-party integrations and applications, or content generated by technologies from partner or vendor platforms.

For example, Avid has taken specific steps when creating the AI model for our [chord suggestion features](#) in our **Sibelius**® music composition product, including ensuring that all content used for training the model has been authorized. A risk-based approach was used to clear AI models for the **Speech-to-Text (STT)** AI technology in this feature, with the understanding that the model faithfully reproduces what the user feeds through audio as text.

Attribution is an extremely important practice in the responsible use of AI – especially when applied to content generated by a third-party application or via technology from external sources. That said, the very nature of deep learning models and technology can make the notions of explainability and understandability difficult, which makes it all the more important for creatives to ensure that content used in their projects is cleared and licensed at the minimum, even if it is not directly attributable.

Fairness and Reliability in the Training Process

A large part of the promise of AI for creatives is the democratization of the storytelling process: that is, the ability **to provide ALL storytellers with the tools, resources, and desire to continue on their creative journey**, regardless of who they are, and what stage of development they are in. At Avid, we believe that



the best way to realize this vision is to ensure that data and models developed, trained, and used for an AI system are **fair** above all things — generating results that avoid discrimination and bias.

The idea of bias is notoriously subjective, largely depending on who perceives the output; bias could be unconscious, imperceptible, sublimated, or even accepted as benign, but may still exist due to the preponderance of certain types of data used for training. To address this, Avid product designers place a particular emphasis on **model selection** at the start of the AI project that prioritizes the principles of **Fairness, Reliability**, with “**Human-in-the-Loop**” able to review the context of use for any generated content in our products.

In certain cases involving limited training data, there are known biases that cannot be avoided. At the minimum, Avid carefully and explicitly acknowledges known biases by openly documenting and sharing with our customers. For example, Avid is investigating the use of **conversational chatbots** in our products including [Avid Ada](#). We require **content filters** to run alongside core models to detect and prevent potentially harmful, offensive, or biased content being provided as input, or to filter such perceived outputs to ensure fair and reliable outputs.

Another example is our use of **STT models** in our products. We consider the presence of bias in certain models due to limited training sets, such as those that work best with English or European language models, as these are more commonly available as training content. In this case, Avid openly declares limitations by publishing the number of languages tested and qualified.

The nature of bias makes the notions of **Fairness** and **Reliability** difficult to address. A shared responsibility that can be taken on by creative professionals is earlier consideration of these principles in relation to AI generated content that makes it into your stories.

Verity Checks

One of the greatest issues of concern in media technology today is the **detection of false information** (“deep fakes”) used in stories, which can obviously and easily misdirect consumers of the content. In these cases, consideration of design using checks both manual and automated are important to ensure **Reliability, Transparency, and Accountability**, which also results in maximizing **Safety** for consumers of generated creative content.

At Avid, all of our product designers and developers are encouraged to assume a **Zero-Trust model** when using information generated from AI systems or when developing AI-based services or features. This is a paradigm that assumes that all content is false and unreliable – a position that provides a foundation for designing mechanisms in our product to verify provenance (where the data came from) and authenticity for all AI-based content used in our products and solutions.

An example of a typical verity check is a software developer who assumes a Zero-Trust model stance when generating code from an AI tool such as [Github Copilot](#) when building our products. While a useful tool that could potentially save a huge amount of time and effort, our developers are required to assume that all AI-generated code was effectively written by the equivalent of a junior developer and thus needs to be reviewed as such — in this case using Avid’s existing software quality and security verification processes.



Based on commonly accepted practices, detection of false information remains an extremely difficult proposition for most consumers of AI-based content. We recommend all creative professionals take this on as a shared responsibility by deploying their own checks based on establishing the origin and provenance of AI generated content used in their stories. The goal is to uphold the principles of **Reliability** and **Accountability** when ensuring your content has not been modified to misrepresent the original intent, which also results in maximizing **Safety** for your audience consuming your creative content.

Full Disclosure

Trust and authenticity are foundational qualities audiences look for in stories. When it comes to AI, it is essential for creative professionals to be committed to fully disclosing where AI is used in the generation of their content. At Avid our features and products always openly declare when and where AI technology is used – to the point of including the “AI” tag in formal feature names in product release.

For example, Avid’s popular and powerful accelerated search functions in our Media Composer® product are explicitly labelled [PhraseFind AI](#) and [ScriptSync AI](#) to ensure full **Transparency** in the use of AI in our products for our end-users.

As the final arbiter for the story being told, the creative professional is responsible for familiarizing themselves with all related policies, provisions and associated mandatory processes if AI content is utilized in their content – and that all required disclosures are made. We recommend making this information openly available to your audience to ensure **Accountability** for your work.

Closely Follow and Participate in Industry Efforts and Developments

It bears repeating that AI technology is evolving rapidly, with industry-changing advancements announced on an increasingly regular basis. In M&E, it’s important to focus on open collaboration and tracking new AI technology developments to better ensure the goal for the responsible use of AI – in support of **all** Fundamental Principles as outlined above.

Avid actively partners in various industry efforts including regulatory and governance initiatives – all with the greater goal of cooperating with the creative community to adopt best practices, operationalize standards, and ensure outcomes that align with regulatory requirements. As part of our social responsibility to our employees, partners, and customers, Avid is active in both academic and corporate efforts to follow and support standards currently being established in AI generated media.

This includes active participation in organizations such as [SMPTE](#), the [HPA](#), and the [DPP](#), where Avid regularly releases technical papers and **Proofs of Concept (POCs)** to seek feedback, value, and fit in application of AI technology to our products and solutions. Avid also features membership in organizations such as [C2PA](#) to provide influence and feedback in future industry efforts for specific areas of responsible AI such as verification of data and outcomes.

Greater inter-organizational cooperation at all levels is crucial for investigating tools and methods in the industry that enable the study and monitoring of advancements in AI. For our creative community, we believe that this kind of shared and collaborative mindset is imperative to feeding into the innovation process to further the goals in the responsible use of AI.



Conclusion

*Dramatic changes in technology have brought disruptive changes to the media industry.
The easier content became to share, the harder it became to sell.
Creatives have been forced to make tough choices.
Media companies have struggled with the impact.
Avid faces the same challenge. But the vision is not Avid's alone.
We've asked our customers and partners to join a movement.
TOGETHER WE CAN LEAD IT.*

- "The Avid Story"

AI poses opportunities and challenges that all creatives will be reckoning with in years to come. At Avid, we've promoted the responsible use of AI not only as internal guidance for our employees, but also for our partner and customer network as sources of data, models, and third-party technology used in our products and solutions. We are pleased to present this guidance for your benefit in using AI as a creative professional and a valued part of our greater creative community: far from just a prescriptive set of rules to follow, we hope that this encourages a shared responsibility mindset to ensure desirable and successful creative outcomes for all storytellers. As part of our commitment to the industry, Avid will continue to remain at the forefront of developments in the field with more great things to come.

We've come a long way from telling stories on cave walls and around campfires ... where AI is going is undeniable proof of that. But as technology in the creative field continues to change – simultaneously bringing us closer together and posing new challenges – the one thing that will never change is this:
It is our fundamental need to express and share the human experience that drives all creatives.

The responsible use of AI can support the trustworthy creation of content, leading us all toward the goal of delighting our audiences with your stories. It may start with a feature, product, or solution from Avid, but it leads to you... and ends with us together. To Power Greater Creators.



www.avid.com

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