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# Examining the Impact of Generative Artificial Intelligence on the Video Creation Industry

## ACKNOWLEDGEMENTS

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AVANI AIRAN, VAISHNAVI PATIL,
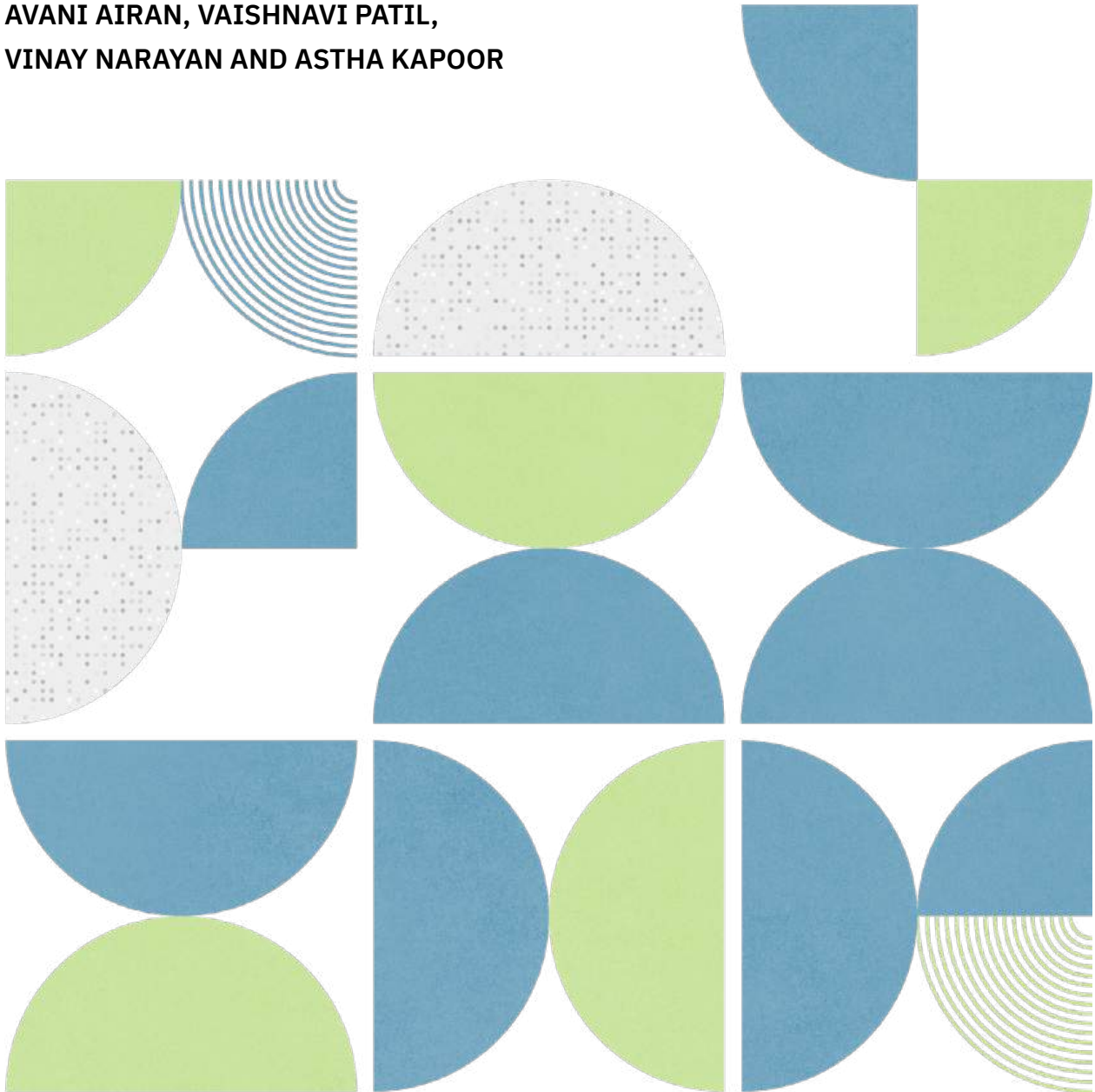VINAY NARAYAN AND ASTHA KAPOOR

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# Introduction

# Introduction

According to a Goldman Sachs report, the equivalent of 300 million full time jobs could be exposed to automation from the adoption of generative AI (GenAI) systems. The same report also predicts that widespread adoption of GenAI tools could lead to a $7 trillion increase in global GDP. In terms of the creative industries, the United Kingdom government believes that artificial intelligence (AI) can help boost them by £50 billion by 2030.

Predictions of such magnitude have brought forth intensely opinionated debates around GenAI tools and outputs. Considering that ChatGPT became the fastest growing tech platform by gaining a million users merely five days after its launch, such debates were complemented by strong anxieties regarding the pace of GenAI adoption - and the impacts it can have on livelihoods and the nature of content being created. It becomes important in this environment to step back and evaluate the current ripples caused by GenAI. Woodruff et al. suggest three categories for understanding perceptions around GenAI:

- **Effort Saving Tool Narrative:** GenAI tools are desirable as they automate menial tasks

- **Transformative Narrative:** GenAI will broadly and substantially transform several industries, tasks and jobs

- **Replacement Narrative:** GenAI will irreversibly replace human labour

However, such polarising narratives can narrow the scope of our understanding of the impact of GenAI. To provide a measured response that can grapple with the labour questions, there is a need to explore the nature of use of GenAI amongst its user base and those purported to be at risk from GenAI usage. In particular,

this research will address the use of GenAI tools amongst video creators, assessing the impact of GenAI in aiding creativity, productivity and the opportunity costs associated with the use of GenAI for video creation for a variety of contexts including film, television and video social media platforms.

Section II sets out the methodology we have adopted for this research. Section III provides a brief overview of what GenAI is and some of the debates surrounding its development and usage. Section IV explores the broad uses of GenAI in creative industries, with Section V diving specifically into how GenAI can be used across the chain of the video creation process. Section VI outlines the benefits and utilities that GenAI can provide while Section VII highlights the concerns around the use of GenAI in the video creation process. Finally, Section VIII sets out recommendations geared towards a more ethical and holistic development and adoption of GenAI.

# Methodology

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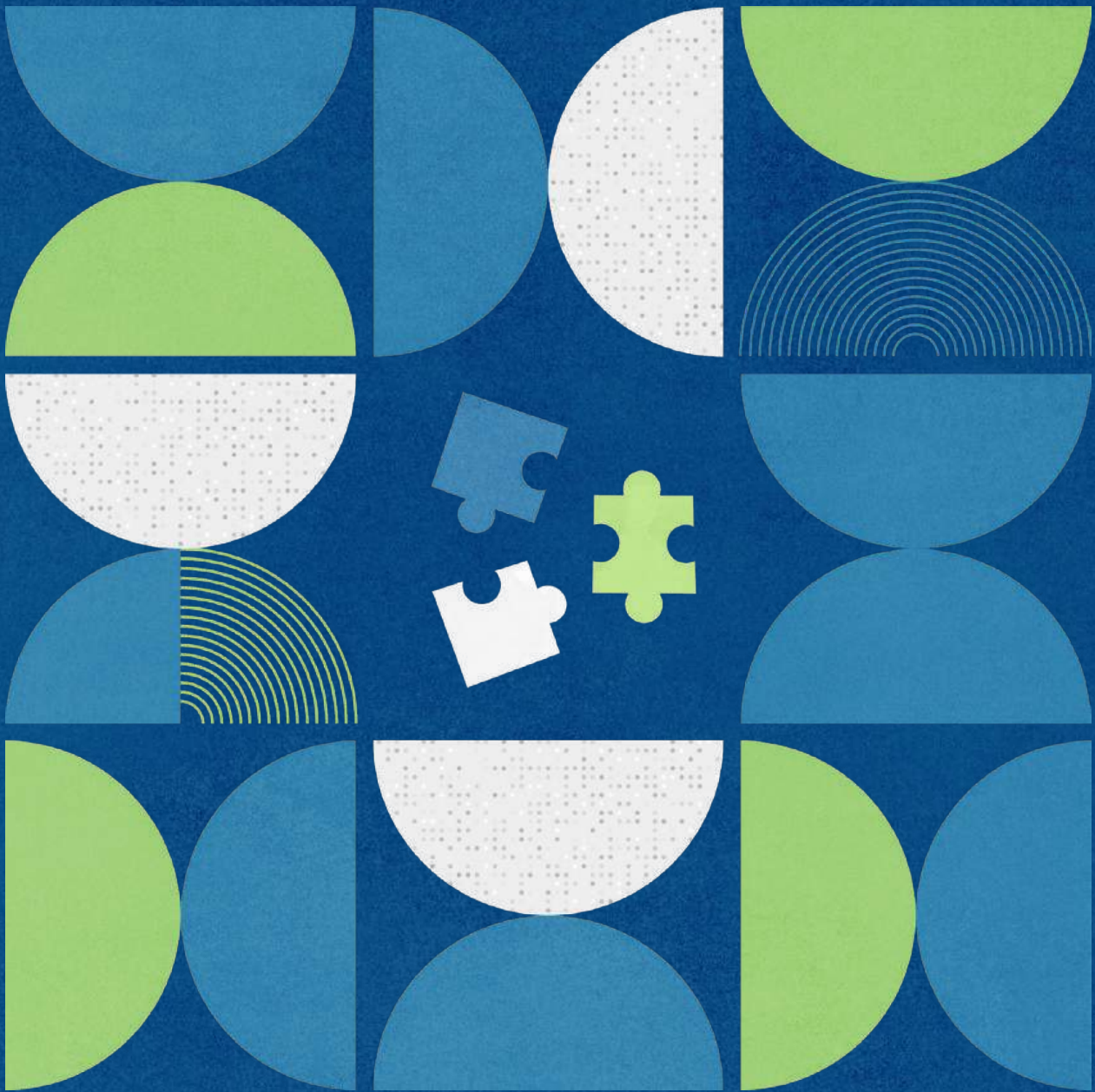
# Methodology

We undertook a mixed methods approach for this research work, combining desk research, in the form of a literature review, with expert interviews.

- **Landscape review:** We reviewed literature that examines a wide spectrum of GenAI technologies and their use, not restricted to video creation. The nature of the video creation process meant that there was use of GenAI tools not directly linked to creating videos. Furthermore, there was a dearth of literature specifically around the impact of use of GenAI for video creation. This helped us develop a strong base of potential opportunities and commonly cited threats and concerns from the use of GenAI. The findings of the landscape review formed the basis of the expert interview guide.

- **Expert interviews:** We spoke to 19 experts with varied backgrounds and experiences in the space of GenAI and video creation. This included academics and lawyers with long expertise in intellectual property (IP) rights issues, including in the domain of AI; creatives who use GenAI, for video creation and otherwise; technologists building GenAI systems; and formal associations representing creatives. The diversity of the experts provided us with a greater understanding of how GenAI is currently being used by creatives, the potential GenAI has in transforming the video creation process, the potential threats to creatives from GenAI and the legality and nature of rights involved in the creation of GenAI technologies and their outputs.

- **Limitations:** While we strived to accommodate a diversity of opinion around this issue, the short timelines involved in this research also restricted our ability to speak with a greater number of experts. Additionally, while we attempted to also ensure diversity in the backgrounds and contexts of the experts we spoke to, we would like to state that given the jurisdictional

focus of this research, we predominantly spoke with experts from Global North contexts. Furthermore, while the research does make brief mention of the legal issues involved in the development of GenAI systems, this was as such not the focus of our study. We nonetheless reviewed literature that spoke to these issues and these were topics that came up during the interviews. While they are likely to have a potential bearing on the adoption and use of GenAI systems, this study was focused more on the outputs of the GenAI systems and their current and potential use. Therefore, this study does not go into a detailed analysis of the legal issues surrounding the development of GenAI systems and readers are urged to refer to sources linked in this research for further reading.
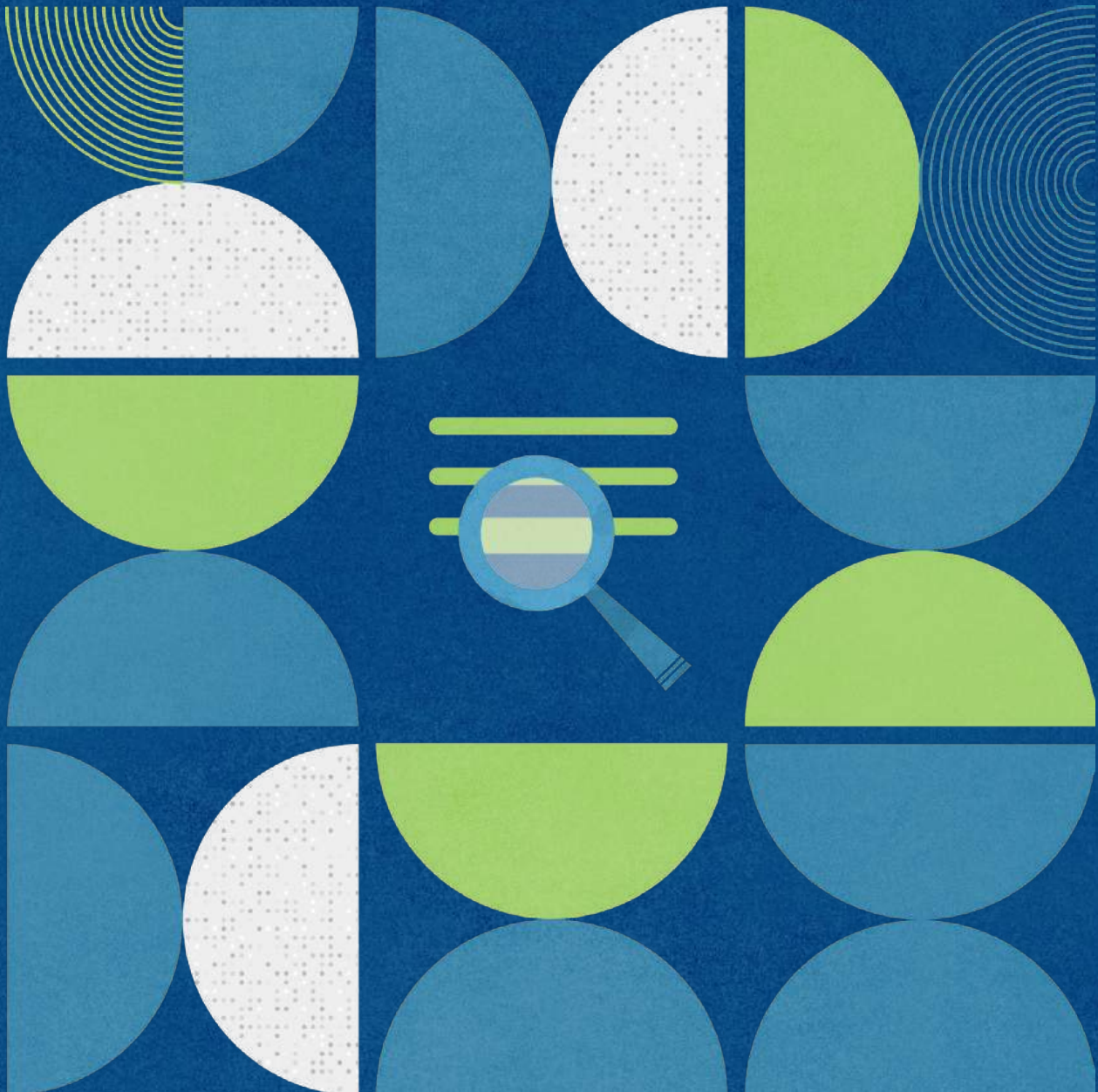
# What is GenAI?

# What is GenAI?

As the term implies, GenAI is a subset of AI that can not only analyse data but also generate new data based on inputs (or prompts). While algorithms trained using huge datasets can recognise patterns, GenAI tools take this a step further. They employ unsupervised learning to imitate and generate such patterns across data without explicit labelling. In doing so, GenAI tools can be used to generate outputs across numerous formats including image, video, audio and even code, all based on text inputs. Naturally, such technology has transformed creative spaces. With the many advancements in text-based, audio-based and image-based GenAI tools, we now see substantial progress being made in video creation processes.

The development of these powerful tools has progressed alongside ethical issues, particularly in terms of the datasets used for training GenAI models. For instance, Stable Diffusion, Midjourney and other image generating GenAI tools used models trained on the LAION-5B dataset, which contains almost six billion tagged images compiled from scraping the web for publicly available content including copyrighted creations. However, many of the creator concerns, while posited as inconsistent with IP and copyright principles, are actually anchored in labour issues. The dataset was made available for non-commercial, research or personal purposes, exacerbating concerns for creators who feel their works were used in a manner that potentially competes with their labour. Moreover, creators are afraid of losing income. While copyright law does not protect style (nor concepts, themes or techniques), Polish artist Greg Rutkowski, whose distinctive dreamy style became one of the most used prompts in Stable Diffusion (over 93,000 times), criticised how GenAI users can mimic his style, hurting his chances to gain commissions. In addition to individual creators, traditional right-holders like the Times, Adobe and Getty Images have voiced

concerns with the use of IP they control to train GenAI models. Interestingly, Adobe and Getty Images have demonstrated their business interest to use their position as a content aggregator to leverage the content they have acquired to train their own AI systems while charging access to others or pursuing lawsuits in the United States and the United Kingdom.

While the courts grapple with how GenAI fits within existing copyright and legal frameworks, voluntary efforts are springing up not anchored in the law. Based on the interviews, it is clear that "fairness" within the creator community is not synonymous with "fair use" concepts under United States law or fair dealing in other jurisdictions.

For example, 273 Venture's Kelvin Legal Large Language Model (KL3M), launched February 2024, was the first LLM to receive FairTrained certification. Industry is exploring voluntary efforts to provide content creators with more granular controls over how their web content is crawled and accessed online.

# Broad uses of GenAI in creative industries
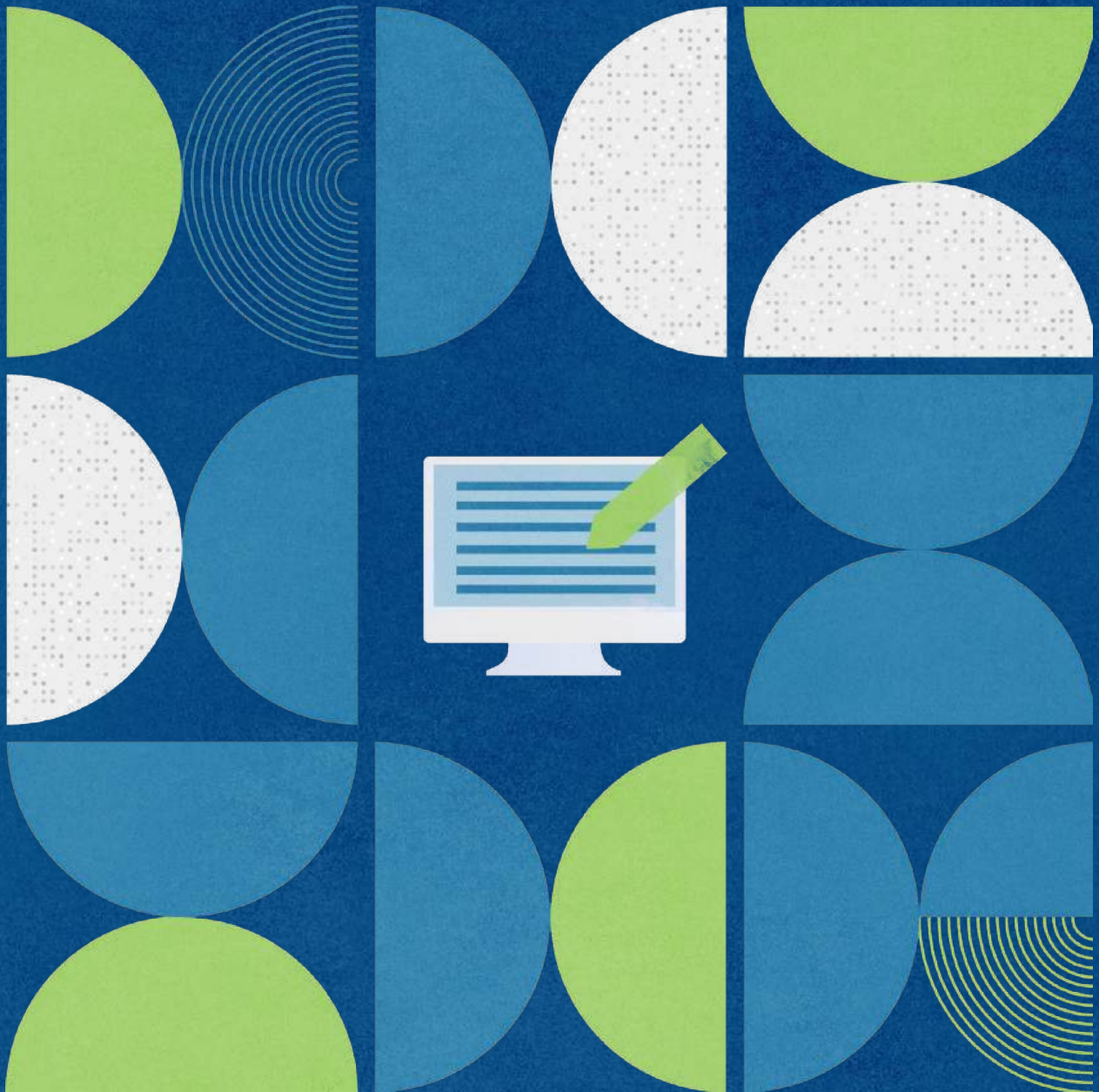
# Broad uses of GenAI in creative industries

GenAI tools have started becoming widespread within the creative industries because of the many advantages they provide to the creative labour market. A Harvard Business Review article delineates three ways creatives can use AI:

## A. Automate structured tasks

GenAI can reduce cognitive load by automating menial routine tasks. GenAI-infused productivity applications have found their way into several industries, including the creative industry. A BCG survey of chief marketing executives identified that half of the respondents were considering GenAI for content generation while 2/3rds wanted to use the technology towards personalisation. In general, employees in creative industries like advertising have been exploring GenAI tools to automate structured creative tasks like creating social media content, personalised emails and brochures.

Insights from expert interviews point to a similar trend. For content creators that we spoke to, the potential of GenAI lies in its ability to alleviate time and budgetary constraints. One Youtube content creator emphasised the practicality of using GenAI for thumbnail generation. They pointed out that due to time and budget constraints, commissioning or creating thumbnails manually for every piece of content is impractical. By automating thumbnail generation for their Youtube videos, they are able to explore new creative avenues without sacrificing efficiency.

In video production contexts too, industry specialists emphasise the prevalence of GenAI in VFX contexts, where repetitive tasks

often dominate the production process. By automating routine tasks, GenAI accelerates production timelines and reduces operational costs, enhancing the industry's overall efficiency. However, they caution that while automation offers clear benefits in terms of productivity, it also raises concerns about the potential erosion of creative autonomy and the homogenization of creative outputs.

Coupled with acknowledgement of its benefits, academics as well as professionals caution against overreliance on GenAI even for structured tasks. An academic studying the intersection of AI and journalism articulated the need for resilience and reliability of the technologies that are integrated into core workflows and distribution channels. Drawing parallels to past dependencies on digital platforms whose resilience and integrity have faltered over time, they spoke to the importance of maintaining editorial oversight and reliable foundations in journalistic responsibilities.

In a similar vein, amateur artists and creatives signal a reluctance to embrace GenAI for creative tasks with a deeper philosophical stance on the nature of creativity itself. For an amateur photographer we interviewed, the joy of photography lies not only in the final product but in the experiential journey of creation with all the minor tasks involved in the process.

**"I don't see photography as labour. I see it as pleasure. And so why would I want a computer to do it when I get enjoyment out of doing it myself? I wanna go outside in the early morning sun at 6 a.m. and get that perfect shot of that highway scene with the light. To me, the process is the fun part, and I don't want to relinquish that to the computer."**

## B. Increase cognitive capacity for unstructured tasks

GenAI can assist in the three major areas of unstructured tasks, namely, creativity, critical thinking and knowledge sharing. It can increase the scope for ideation and problem-solving and implement its 'storytelling' abilities to articulate, evaluate and refine ideas.

The technology's potential in these areas is recognized by both industry specialists and academics, who provide nuanced perspectives on its utilisation and inherent limitations.

In creative industries like theatre, GenAI serves as a collaborative tool, supplementing team workflows rather than solely dictating creative outcomes. An industry specialist noted its integration into collaborative processes as an efficient iterative tool that can help communicate early ideas within team projects more efficiently. However, despite its prevalence in workflow optimization, mainstream adoption in finished products remains limited. Similarly, within journalism, GenAI tools like AP's Merlin play a crucial role in streamlining tasks such as image search. An academic at the intersection of AI and journalism highlighted Merlin's ability to eliminate the need for metadata or tags and enhancing the accuracy of image searches, allowing journalists to explore generic or factual archives more creatively and thoughtfully, while maintaining journalistic integrity.

However, while GenAI offers efficiency gains, the technology, in its currently available applications, has inherent limitations in capturing emotional connections and executing creativity effectively. A professional from the theatre space emphasised on the distinction between tool functionality and human creativity, noting that while AI tools can perform certain tasks, the human connection to a story still primarily comes from the emotional investment in choosing to express an idea with intentional creative choices. For artists, the balance thus lies in the complementary nature of GenAI's tool based functionalities and human creativity. Their perspective challenges the notion of AI as a universal solution to creative challenges, emphasising the irreplaceable role of human intuition and emotion in artistic expression.

The rationale behind creatives' incorporation of tools into their processes is also shown to be multifaceted. As per an amateur artist, while digital workflows offer efficiency benefits, some creators prioritise slower, more contemplative approaches to creativity. For them, GenAI's integration into such processes is influenced by a complex interplay of technological advancements, economic imperatives and individual creative preferences.

## C. Improve learning

For people seeking knowledge and vocational training, GenAI can serve as a [valuable tool by offering personalised learning experiences](). It can provide feedback, alternative points of view and personalised advice and instructions on how to improve one's creativity.

A senior professional from the theatre space we interviewed presented fascinating use cases for GenAI towards vocational training and learning processes. For a young person who may be living in a very remote area trying to improve their technique at forming Shakespeare, GenAI could be used as an interactive supportive feature that simulates actual recitals. However, caution should be had to the potential threat of homogeneity with the widespread use of GenAI for training and learning. Especially in instances where there isn't a specific focus on encouraging individual creativity, which can be hard to code into GenAI systems, there is a risk of a degree of uniformity in the creations of aspiring creatives trained by GenAI systems. As with other use cases for AI more broadly, there is a need to meter GenAI usage with human involvement.

# Use cases of GenAI in video creation
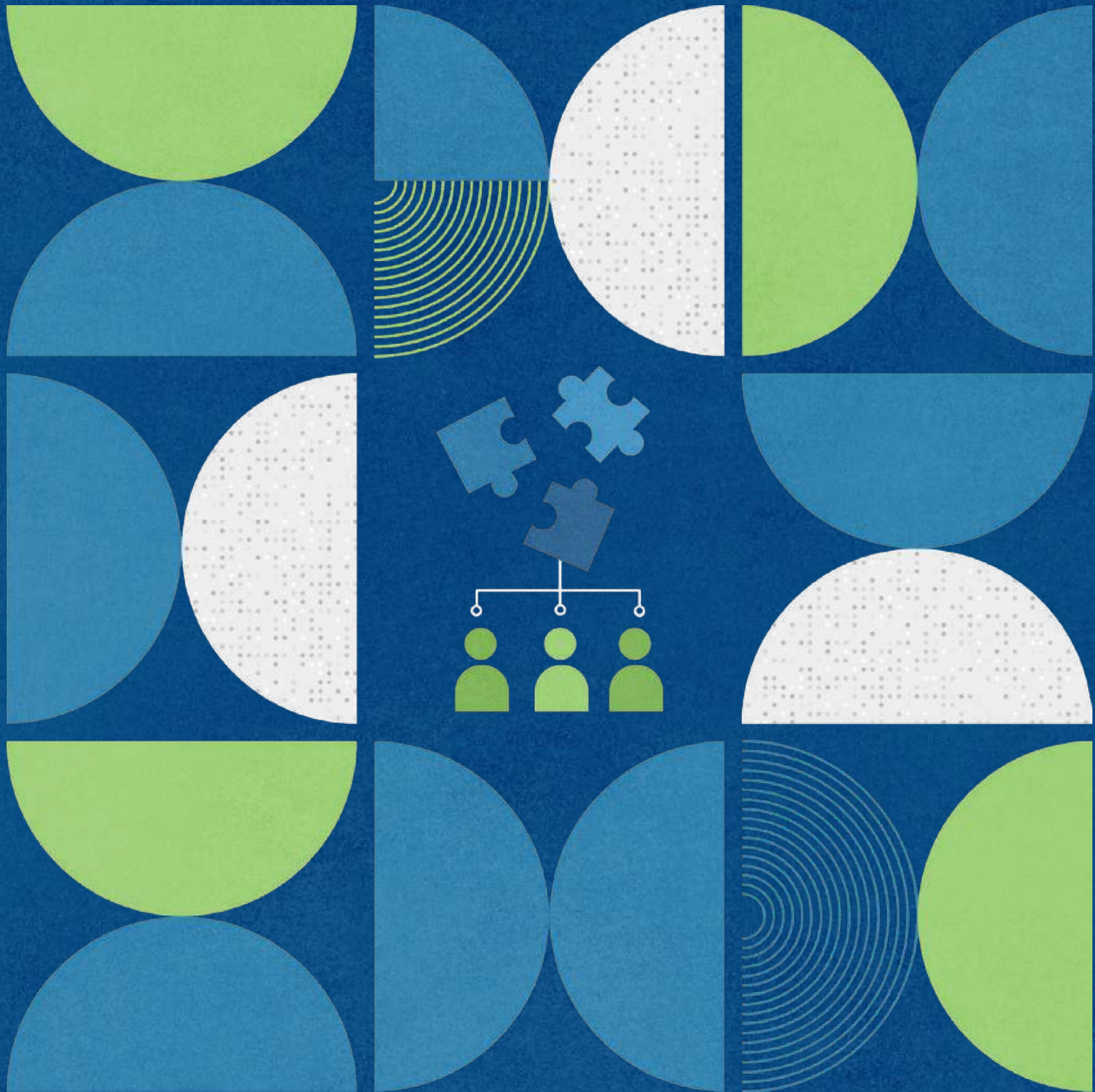
# Use cases of GenAI in video creation

With digital media increasing due to lowered barriers of entry, a Goldman Sachs Research report suggests that the creative economy will approach $480 billion by 2027, as compared to $250 billion in 2022-23. The report points specifically to the introduction of new short-form videos and live-streaming channels on platforms like TikTok, Facebook and YouTube.

While open-source digital tools like Blender (3D creation suite for modelling, animation and rendering) Pencil2D (traditional animation), Krita (intuitive painting interface) and Synfig (vector-based 2D animation) have contributed to substantial growth over the last decade and more, GenAI tools have become increasingly influential. TensorFlow (can be used for automated tweening, motion capture and scene compositions) and Dall-E (text-to-image tool) are two prime examples. Additionally, Cassie Quarless, a United Kingdom based director, producer and co-founder of a production company called black & brown, lists AI tools that she considers to be relevant for each step of the video production process, as follows:

| STAKEHOLDER TYPE | EXPECTATIONS | MODE |
| --- | --- | --- |
| **General Purpose** | Midjourney | Text-to-image tasks |
| | Stable Diffusion | Free alternative for text-to-image tasks (with ControlNet extension turning sketches into images) |
| | ChatGPT | Several usecases, e.g. information retrieval |

| STAKEHOLDER TYPE | EXPECTATIONS | MODE |
| --- | --- | --- |
| Development | Perplexity | Interactive search engine |
| | ElevenLabs | Speech Synthesis |
| | RunwayML | Filmmaking tools, e.g. Rotoscoping and Motion Brush |
| | HeyGen | Video Synthesis |
| **PREPRODUCTION** | | |
| Scriptwriting | Character.ai | Roleplay with chatbot |
| | ChatGPT | Thought Partner |
| Storyboarding | Midjourney | Simple storyboarding |
| | Stable Diffusion | More controlled storyboarding |
| | Krea.ai | Text-to-image and image-to-image tasks |
| Location Scouting | Luma | 3D scanning and rendering using Neural Radiance Field technology |
| **PRODUCTION** | | |
| Filming | Luma | Executing complex shots |
| Motion Capture | Move | Capture/render motion for 3D and CGI outputs |
| | Wonder Studio | Precision in motion capture |

| STAKEHOLDER TYPE | EXPECTATIONS | MODE |
|---|---|---|
| **POST PRODUCTION** | | |
| Transcription | Otter.ai | Audio/video-to-text tasks |
| | Trint | Audio/video-to-text tasks |
| | Descript | Audio/video-to-text tasks |
| | Transcript Summarise | Author-created custom GPT for audio/video-to-text tasks |
| Cleaning Archive | Topaz | Archival footage cleaning |
| | Stable Diffusion | Upscale image quality |
| Voiceover | ElevenLabs | Recording and re-recording audio |
| Clean Audio | Adobe Podcast AI | Enhancing and cleaning audio, like speech |
| Instrumental Creation | Lalal.ai | Separating vocals from instrumentals |
| | Universal Vocal Remover | Track separation |
| Music Creation | Soundraw | Music generation |
| | Suno.ai | Music generation |
| | Voqul | Vocal cloning |
| **DISTRIBUTION** | | |
| Dubbing | Flawless | Digital replica technology to sync mouth movements with speech audio |
| | HeyGen | Video translation and dubbing |

> **"GenAI has been the technology that studios have been waiting for for years to transform how things have been done at a business level. Now, they have the position to figure out how to do it in an industry that's very sensitive about it."**

Beyond direct application of tools within the various stages of the video production itself, industry experts we interviewed also mention the beneficial use of AI towards other functions like marketing and distribution. A leader within the theatre space highlighted the utility of GenAI tools towards rapid prototyping, visualising how static posters can be converted to animated videos, and subsequently working with a visual effects artist to fully realise it. Similarly, a professional involved in journalism spoke to the potential of such tools in creating context specific content for different types of platforms a story might go towards. Efficiency in being able to represent core footage in multiple formats for a variety of contexts ranging from formal presentation to social media dissemination provides efficiency in workflows without compromising on informational integrity.

Professionals within the video production space also underscore the democratising impact of GenAI. Traditionally, video production requires specialised technical expertise, limiting access to a select few. However, according to a senior producer, the transition from complex editing software like Avid Media Composer to more intuitive and accessible tools have democratised this domain, empowering a broader spectrum of creators to manipulate technology and realise their creative visions. Other experts also emphasised the transformative potential of GenAI in studio settings where they can now depend on new platforms to do certain things that need to be cheaper, faster, better. The democratisation effect also works when factoring in costs typically associated with producing videos. Equipment required to shoot videos, including renting video cameras, sets, props, etc. can be quite expensive. GenAI tools provide the ability to create similar shots at a much lower cost. However, one creative we spoke to cautioned that this is applicable only to certain types of GenAI tools - with certain others requiring higher computing power to operate, which comes with its own set of high costs. Additionally, an interviewee also wondered whether the cost of access to these tools will likely rise in the future, following a trend commonly seen with relatively newer digital tools and platforms.

With the number of GenAI tools growing at an exponential rate, the creator ecosystem has been integrating more and more of them in their workflows. [Lyu et. al](). elucidate how GenAI is used by Youtube content creators to generate videos, images, audio, computer programs, documents, slides and websites. The study identifies six primary domains in which Youtubers have applied GenAI tools — **arts** (34.33%), **marketing** (19.4%), **entertainment** (14.93%), **career** (8.96%), **programming** (7.46%) and **education** (7.46%). Within these domains, the study recognises eight types of actions taken up by GenAI in Youtube videos:

1. **Generate** (58.21% of videos studied): for automatically generating novel content through prompts or converting one type of content to another.

2. **Upscale** (40.30%): for enhancing existing content, either by incorporating AI-generated elements or improving video quality.

3. **Suggest** (35.82%): LLMs and text processors for generating ideas or brainstorming topics.

4. **Write** (31.34%): for producing well-formatted documents like scripts and articles as well as writing tasks like editing, summarising and composition.

5. **Develop** (<10%): for creating APIs that can be incorporated into programming tutorials.

6. **Solve** (<10%): for gaining specific answers to practical problems.

7. **Analyse** (<10%): for critically comparing different topics and subjects.

8. **Impersonate** (<10%): for roleplaying characters to enhance interactive capacities.

The paper also investigates which GenAI tools were used for the Youtube videos within the study. They are:

**1. LLMs** (found in 41.79% of videos studied) like ChatGPT, Palm and RapidAPI

**2. Image Processors** (40.30%) like
   a. Midjourney, DALL-E, SeaArt, and Lexica for imaginative pictures,

b. Picture Perfect AI, AutoPortrait.ai, and ReflectMe for creating AI avatars, and

c. Fotor and Adobe Firefly for image enhancement

3. **Video Processors** (37.31%) like

a. Adobe Premiere Pro, Wisecut and DScript for video editing,

b. Pictory, Lumen5, and Steve.ai to automate video generation or identify stock footage,

c. Synthesia, D-ID, and B-Human for talking video avatar generation, and

d. Kaiber.ai for animate AI-generated images

4. **Audio Processors** (22.39%) like

a. Voxbox, Play.ht, and ElevenLabs for text-to-speech tasks, and

b. AudioPod for podcast editing

5. **Text Processors** (8.96%) like

a. SEOWriting.ai and Zentask for SEO optimisation,

b. VidIQ and VEED.IO for crafting popular video scripts, and

c. Quillbot and Rytr for paraphrasing or creative writing

6. **Template Creators** (7.46%) like

a. Canva Magic Write and Openelms.ai for slide creation, and

b. Durable.co for web templates

Creatives we interviewed for this research resonated with the multi-layered use of AI within this industry, and emphasised the need to scope what we mean by GenAI and how we breakdown the video production process, which might include text, image or video generation tools, of which some may not even technically be generative. A Youtube creator identified a range of AI tools they rely on in their workflow – from video editing software like Adobe Premiere for text editing, Decript to make podcast scripts more interactive, to knowledge management platforms like Obsidian, highlighting their diverse applications across different stages of content creation.

# Benefits and opportunities from GenAI usage
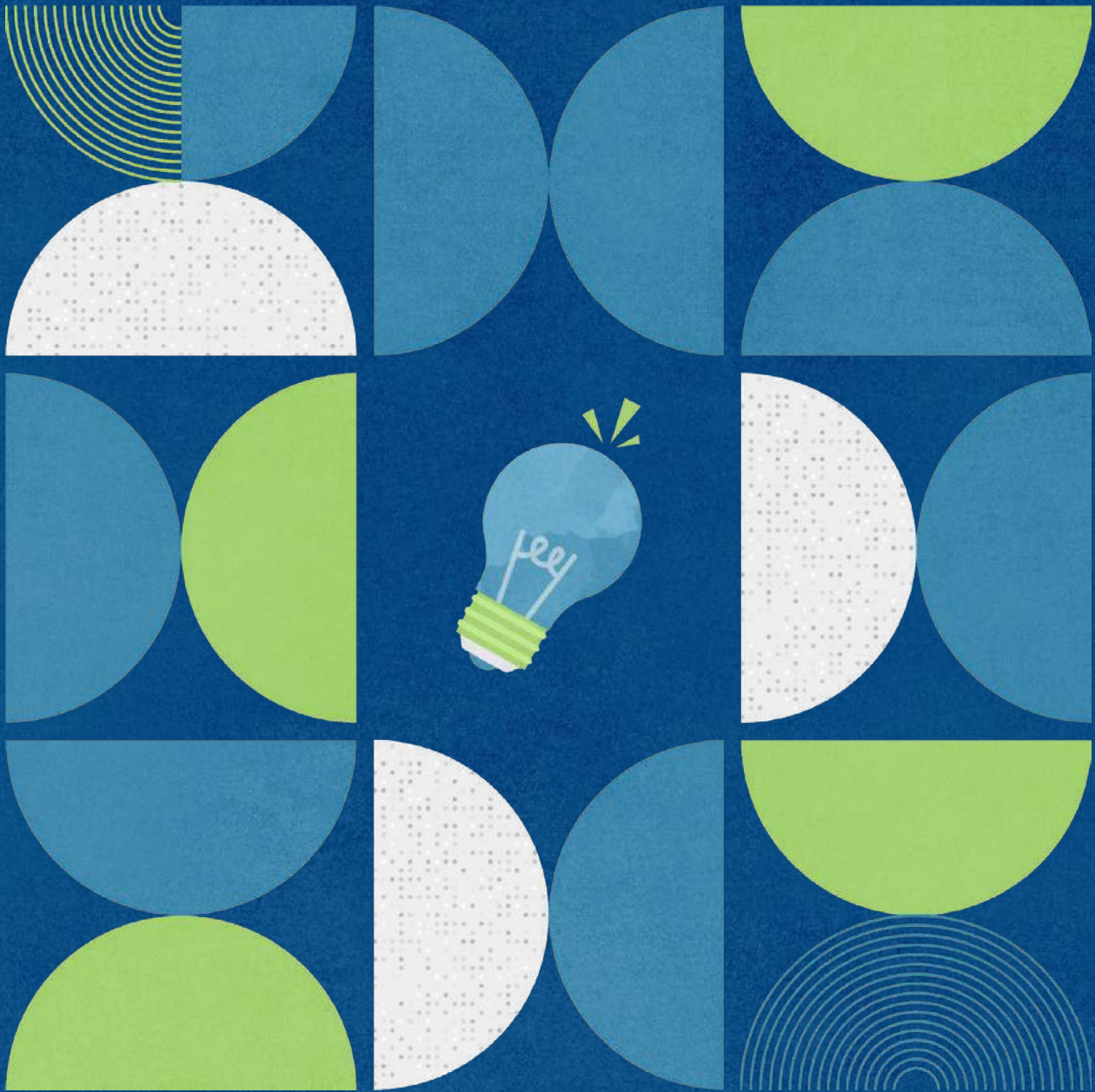
# Benefits and opportunities from GenAI usage

Regardless of ethical concerns in the development of this technology, GenAI is here to stay. It has found use cases across industries due to its key characteristics, as follows:

## A. Divergent Thinking

Hubert et. al.'s report purports that GenAI can enhance creativity when it comes to divergent thinking. Particularly, when fluency of responses was controlled, GenAI was more able to produce outputs that were more original and elaborate. The paper however argues that while divergent thinking is an indicator of creative potential, it does not guarantee creative achievement. Thus, the creative potential of GenAI is in a state of stagnation until prompted by a human user who aspires towards creative achievement.

Thus, GenAI tools can support the creator's divergent thinking, by identifying patterns and themes and connecting concepts to produce novel outputs. It can produce several variations on a single theme, like how an algorithm produced seven million versions of Nutella's graphic design identity. An HBR report claims that GenAI can challenge biases like the Einstellung effect (experience impeding new ways to solve problems), design fixation (fixation on standard design formats) and functional fixedness (incapacity to consider beyond traditional uses). The report suggests that the dynamism of GenAI can jumpstart innovation and provide unimaginable solutions. For example, a GenAI tool like Deep Dream Generator can automate mockups or inform colour schemes.

Interviews with media professionals also highlight that while the scope of GenAI's use for creative processes is limited, it has the potential to be useful as a tool for brainstorming ideas on headlines

and creative puns that may not intuitively come to a human mind with the same speed.

## B. Decision Making

By confronting expertise biases towards novelty, GenAI extends the value of human expertise to a larger demographic. According to an article in Noema Magazine, GenAI tools make data analysis cheap and abundant, thereby allowing decision-making and its accompanying resources to not be concentrated among elite experts. It can allow workers who have foundational training to make high stakes decisions. The article argues that GenAI has the potential of allowing the middle class in the Global North to take up jobs that were 'hollowed out by automation and globalisation'.

Interviews we conducted present limited insight to how these tools augment decision making processes. Some creatives point to its limitation in being used towards core creative outputs, but acknowledge its utility in providing support to refine pre-existing ideas and taking better calls on how to frame the content in different ways. Others from content creation spaces highlighted more exciting potential for its use in getting recommendations on new content they can create for the algorithm, from the algorithm.

## C. Democratisation

GenAI can provide the opportunity to democratise the creative industry by allowing experts to create novel ideas and non-experts to make their ideas feasible. Tim Hickson, in his video essay titled 'The AI Art Apocalypse' compares the introduction of GenAI with advances in video technology and Youtube. As it became cheaper and easier to produce and distribute videos through Youtube, individuals were then empowered to create and sustain their own media channels that are now competing with mainstream media. Similarly, GenAI could prove to be a powerful tool that allows individuals to execute their ideas and gain a competitive advantage. However, Hickson claims that while such transitions could happen in the future, only time will tell whether they would truly make creatives feel more agential. These concerns are further aggravated by a prevalent fear of GenAI displacing creative labour.

Similar cautiously optimistic themes emerged from interviews with creatives, professionals, lawyers and academics alike. A producer

we interviewed hailed these technologies for their role in opening up a domain of highly technical skills to a larger public with its ease of use empowering users with the ability to manipulate creation in an entirely novel and accessible way. Others compounded on these insights with mention of the limited need for technical training in learning the art of prompt engineering. As per industry experts we interviewed, this ease of use has also translated to an easier point of entry into projects that would typically be dependent on working with higher resource backing and bigger, more expensive teams. In such contexts, the technology is seen to level the playing field for more artists to undertake creative endeavours that were previously only accessible to a few people.

Academics and amateur artists interviewed also point to more specific accessibility needs that GenAI tools support. For non-native English speakers, using the tools to write with correct grammar, or for converting notes into presentations for lectures has added ease of navigating foreign language contexts. Access to the technology has also led to discovery of new talents in creative expression for people with disabilities around physical tools. An amateur artist we spoke to mentioned how they never explored art or painting due to a condition that prevents them from holding a pen or a pencil for long durations. For them, GenAI tools have opened a world of translating some of their ideas into image or audio-visual formats despite such disabilities.

An academic specialising in media studies, provides a nuanced perspective on the democratisation of GenAI tools, particularly concerning language and geographic diversity. In regions characterised by linguistic diversity, such as Spain with its multitude of languages and dialects (e.g., Galician, Catalan, Castilian), GenAI tools offer opportunities for native language creators to engage more widely with diverse linguistic communities. However, according to this interviewee, while the accessibility of language tools expands opportunities for creators to reach broader audiences, the proliferation of translated content also leads to increased competition and reduced visibility for content creators in regions where linguistic barriers once provided a degree of protection in the media market. This highlights the need to interrogate how democratisation on the creation end translates in the distribution and reception of such content.

For content creators we interviewed, a similar complexity arises in evaluating the gains from ease and efficiency of content creation on one end, and the flooding of "diluted content" that decreases reliable visibility for all professionals. This assessment becomes especially crucial in the context of a general backlash against AI generated content, with platform policies mandating disclosures on its use.

## D. Ecosystem advancement and innovation

The ability of GenAI tools to generate content based on prompts can be instrumental in opening up new modalities of engagement and art. One interviewee suggested that GenAI tools have massive potential in supporting interactive fiction, where consumers get to play a much larger role in the substance of the content they consume. Interactive fiction in and of itself is not a new concept. Choose Your Own Adventure and Goosebumps are two of the most popular iterations of interactive books that allow readers to make choices at key moments with the outcome of the story changing on that basis. More recently, Netflix has popularised this in video format, with interactive movies and TV series. GenAI tools have the potential to unlock the next step in this evolution, allowing for a greater degree of interactivity and versatility in choices and outcomes. However, as an interviewee reiterated, there would be a need to implement strong guardrails to prevent harmful or problematic content being generated, either intentionally or inadvertently by users. Another interviewee suggested that this type of interactive experience is something that can be leveraged by bigger rights holders who can combine this versatility with their existing IP to provide various offerings across a number of sectors, including ecommerce.

GenAI tools can also add to efficiencies in collaboration - allowing for more dynamic collaborative workflows, such as when creating animated characters, where the voicing could be done by one actor, with the character's modelling being done by another actor. The ability to do both simultaneously, powered through GenAI tools can also open up newer opportunities for actors skilled in particular areas.

# Concerns in using GenAI for video creation
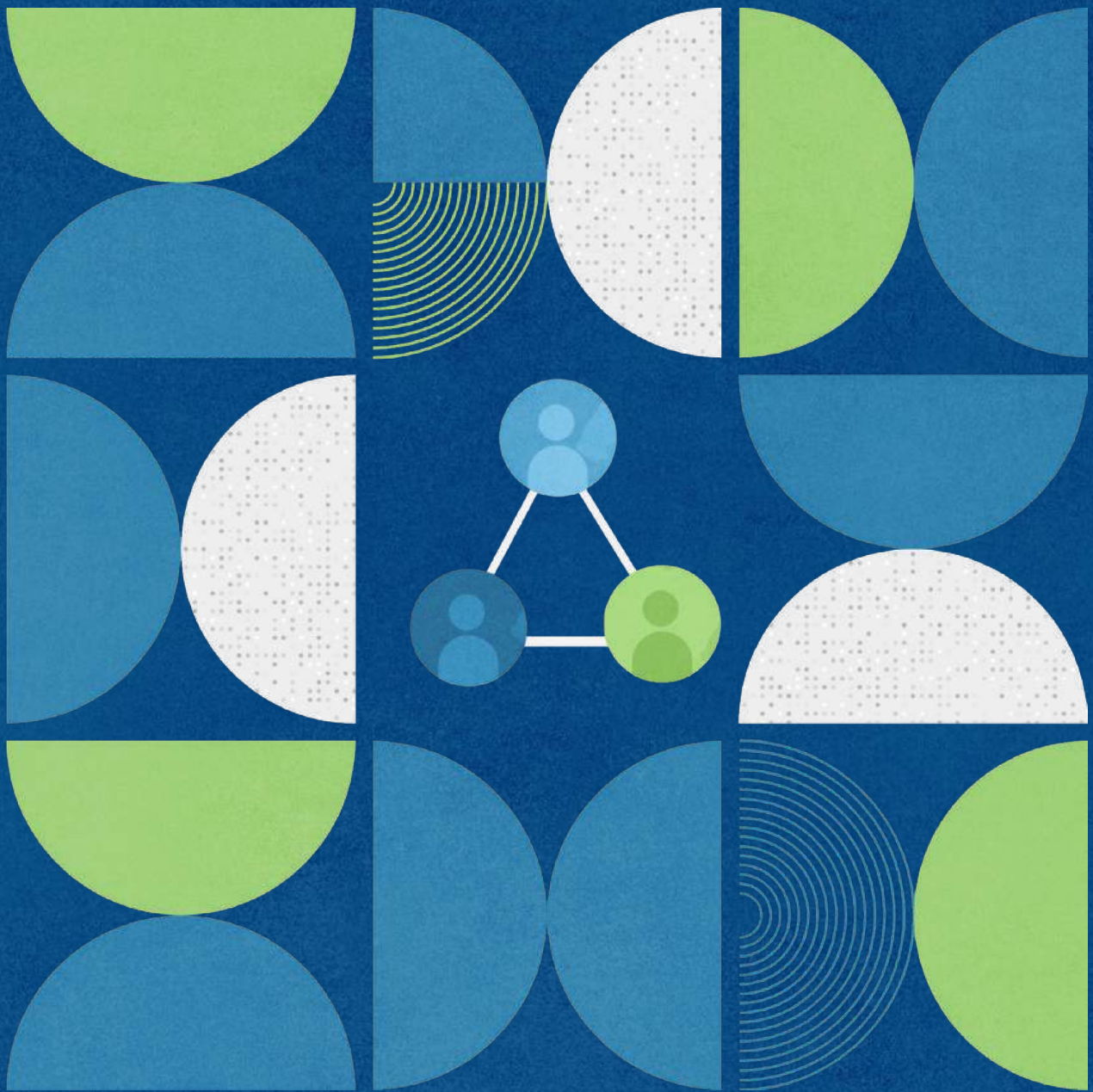
# Concerns in using GenAI for video creation

Technology has always been a catalyst that sparked revolutions. While such technological transformations have brought forth new opportunities, they have also presented unprecedented challenges. Academics have tried to understand creative concerns with concepts like 'Technostress' — a term representing anxieties faced by individuals towards adoption of new technologies, like the printing press or the telegraph.

GenAI has invoked apprehensions that are beyond the scope of previous theoretical understandings. It is clear that current users of GenAI are implementing the tools to brainstorm ideas, refine designs and explore art to create a ['co-evolutionary hybrid intelligence'](#). But GenAI can be used to not only enhance one's art, but also to mimic artistic endeavours. Many visual artists, in particular, have raised their voices against the prevalence of GenAI assets. For example, [Lois van Baarle](#), a visual artist popularly known as Loish, says,

**"Many have compared image generators to human artists seeking out inspiration. Those two are not the same. My art is literally being fed into these generators through the datasets, and spat back out of a program that has no inherent sense of what is respectful to artists. As long as my art is literally integrated into the system used to create the images, it is commercial use of my art without my consent. Until there is an ethically sourced database that compensates artists for the use of their images, I am against AI art."**

Non-consensual commercial use of visual art to produce stylistically similar outputs has become a core issue for many individual creators. Loish, like other visual artists, claim that they are not treated the same way as musicians, considering GenAI music generator models are usually trained on only royalty free music. Nonetheless, a GEMA-SACEM joint study on the AI use in the music sector revealed that 64% of the surveyed musicians felt that the risks of AI outweigh its opportunities. Over 90% of survey participants demanded credit, consent and remuneration when their work is used in developing GenAI tools (with this accounting for the existence of copyright to the works being used).

Creatives also demanded transparency, asking for music generated through GenAI tools to be labelled as such. There are many industry and multi-stakeholder initiatives, such as PAI and C2PA to provide best practices for labelling synthetic media and disclosures.

## A. Creative displacement anxieties

Unlike other technological tools, GenAI allows for users to generate "creative" content - an ability that is perceived as a fundamental human characteristic. GenAI has elicited debates on authenticity of artistic endeavours, perceived societal value of creativity as well as the entire creative experience from production to consumption. The psychological lens is then a relevant starting point to understand creative concerns in relation to GenAI.

Nicholas Caporusso introduces the concept of Creative Displacement Anxiety (CDA) to understand the psychological condition that could result from a perceived threat and/or actual replacement of human creativity by GenAI. A creator can experience CDA as follows:

1. **Loss of identity and purpose:** A creator could doubt their self-worth

2. **Imposter syndrome:** Creators using GenAI tools might question the authenticity of their own creativity

3. **Declining motivation:** If a creator perceives GenAI as something that can replace their labour, they might find no motivation to create using their own creative processes

4. **Weakened cathartic experience:** A creator using GenAI tools might feel like their artistic expression is diminished if GenAI tools are not creatively cognizant

5. **Skills atrophy:** A reduced motivation to create could lead to deterioration of a creator's skills

6. **Diminishing artistic references:** Decreasing artistic activities could lead to a declining number of people pursuing art - thereby leading to a regression in quality and quantity of artistic references

7. **Economic anxiety:** A challenging job market can induce financial stresses and related psychological consequences

Caporusso also suggests the types of emotional, cognitive and behavioural responses due to CDA:

| EMOTIONAL | COGNITIVE | BEHAVIOURAL |
|---|---|---|
| **Anxiety/ Worry:** Constant concern about one's relevance | **Rumination:** Obsessive thinking of AI's impact, leading to paralysis by analysis | **Avoidance/ Withdrawal:** Avoid creative pursuits to avoid comparison with GenAI content |
| **Feeling Inadequate:** Inferiority compared to AI-generated content | **Constant Doubt:** Questioning one's own authenticity | **Over-reliance on GenAI:** Leaning heavily on GenAI tools could lead to skill atrophy |
| **Jealousy/ Resentment:** Towards creators better at leveraging AI and GenAI in general | **Hypercriticism:** Over analysing one's work to find elements to set them apart from GenAI content | **Overcompensation:** Trying hard to differentiate oneself from GenAI content could lead to inauthentic outputs |
| **Loss of Identity/ Despair:** Diminished self-worth | **Cognitive Narrowing:** Focusing excessively on specific styles or niches with the hope that they are safe from GenAI influence, thereby stifling creativity | **Rejection of GenAI:** Refusal to acknowledge GenAI even if it is beneficial to their artistic process |
| **Depression**: Stemming from perceived lack of purpose | **Overall Pessimism:** Belief that AI will overshadow all aspects of creativity | **Isolation:** Avoid artistic networks, discussions, or collaborations that welcome AI-based creativity, potentially missing opportunities |

According to Caporusso, some demographics are more likely to experience CDA than others. Creative professionals whose identity and livelihood depend on creative endeavours are susceptible. Their experience of CDA can be further exacerbated if they have limited resources, education, or understanding of AI. Individuals with pre-existing mental health conditions, youth that are yet to find their creative identity, and creators enduring personal and professional pressures are also prone to experiencing CDA.

The Self-Determination Theory, by understanding autonomy, relatedness and competence as the core of human motivation, can help understand how CDA impacts intrinsic motivation. In general, it can be said that CDA stems primarily from situating GenAI as competition. Nonetheless, if people begin to view GenAI tools as collaborators, it can enhance one's sense of purpose, self-efficacy and appreciation for symbiotic creativity.

Beyond the personal experiences of the creatives and artists whose processes might be directly affected by the use of GenAI tools, insights from industry professionals challenge the notion of wholesale displacement of human creativity and artistic labour by GenAI. One senior producer we spoke with emphasised that GenAI, while enhancing efficiency, does not inherently possess creativity. The creative process remains exclusive to human ingenuity, with GenAI serving as a tool to augment rather than replace human thought. They suggest that creators can innovate in their approach, leveraging GenAI to explore new forms of artistic expression.

**"Just because we have the tools to do something doesn't immediately mean we can do it really well. And I think people forget that sometimes. Perhaps with GenAI advancing, you might even technically make these great looking videos. But it matters whether you can create an emotional connection to that image - tell a story that makes people feel strong emotions. I think it's still a tool like anything else and your creativity still varies."**

Similarly, a researcher at the intersection of AI and IP suggests a shift towards art with a more prominent human connection in response to increasing automation in production processes. While automated outputs may proliferate, they believe that there will be a renewed focus on creations that require significant human input,

fostering direct relationships between creators and audiences. Per their vision, alongside concerns on displacement there may also be a redefinition of the creator-audience dynamic, wherein human aspects of creativity are accentuated, offering unique and immersive experiences that transcend automated outputs.

Other interviewees engage more deeply on the degrees of how and where displacement might occur owing to industry design and the specific skills involved.

A content creator we interviewed underscored that the impact of GenAI is more perceptible among junior creatives. In their understanding, individuals in entry-level positions, often tasked with menial jobs, may find their roles increasingly automated by AI-driven tools. This observation aligns with broader concerns within the creative industry about the potential displacement of roles traditionally performed by emerging professionals. While the interviewee acknowledges these shifts, they also note the lack of comprehensive statistical data to substantiate anecdotal evidence, indicating a need for further research to understand the true extent of displacement. Interviews with senior producers added depth to this stance by highlighting that while directors, producers and writers may feel relatively secure in their positions, background actors face a more immediate threat. The ability of AI to synthesise characters and scenes may render such roles obsolete, leading to job displacement.

An academic working closely with creatives also pointed to how the ease of generating logos and visual elements using AI tools may pose a threat to traditional graphic design roles. From their understanding, independent creators, in particular, may feel the impact of displacement more acutely, as they may lack access to resources and support systems available to larger organisations. Their insights underscore the importance of considering the socioeconomic context in which displacement anxieties manifest, highlighting disparities in access and opportunity within the creative industry. A professional within the industry, cautioned that the technical and socioeconomic divide may exacerbate existing inequalities, creating barriers for individuals who lack access to these technologies. This sentiment is echoed by researchers, who make a deeper breakdown on how we view democratisation, what

we mean by access and how the structural inequalities inherent to societies are retained in GenAI contexts. For most users and professionals, structural inequalities inherent in society continue to translate in the GenAI context and efforts must be made to ensure that the technology both counters existing issues and prevents the emergence of new obstacles for often marginalised groups.

Experts within media and theatre spaces offered a broader perspective on the disruptive potential of GenAI across different creative industries.

Drawing parallels with the evolution of CGI in filmmaking and computerization in architecture, a media professional suggested that GenAI may bring about significant transformations in content creation processes that may augment instead of displace these creative labour markets. In a similar vein they highlight how resilience of certain sectors, such as journalism, which prioritise authenticity and representation of reality provide valuable insights into the complex interplay between technology and creativity and the resulting impact on the future of work within these spaces.

Lawyers specialising at the intersection of AI and IP introduced a crucial dimension to the discussion by highlighting the legal uncertainties surrounding the use of AI-generated content in composite products. Their inputs signalled how companies, particularly in industries like gaming and media, may exhibit risk aversion when incorporating AI-generated elements into their products due to concerns about copyright infringement and legal liability. This cautious approach could inadvertently serve as a safeguard against widespread displacement, as companies tend to prioritise mitigating legal risks over adopting wholesale efficiencies.

Furthermore, academics underscored the emergence of new skill sets and job opportunities stemming from the integration of AI technologies into creative workflows. While these technologies risk displacement, they also present avenues for individuals to adapt their skill sets and capitalise on emerging opportunities. This stance becomes richer with insights from economists we interviewed, who focus on the future of work in their research.

**"Think of jobs as being on a spectrum, with a combination of skills that people deploy to do productive work. If you think about jobs as being clusters of skills, the more interesting question we thought was what's the impact of AI for future skills."**

By conceptualising jobs as clusters of skills rather than discrete roles, they posit that the impact of AI on employment is better understood by examining shifts in skill requirements rather than focusing solely on job displacement. This approach reframes the discussion by emphasising the dynamic nature of skill acquisition and adaptation in response to technological change and a forward-thinking approach to workforce development.

## B. Skill gaps

In exploring the impact of GenAI on skill development in creative fields, experts offer nuanced perspectives on the evolving nature of expertise and the challenges and opportunities it presents.

An academic we interviewed emphasised the transformative potential of GenAI, noting its ability to empower individuals with varying skill levels to produce high-quality work. However, while they suggest that AI tools blur traditional boundaries between novice and expert creators, they also noted the importance of specialised skills in maximising the benefits of AI technologies. According to their analysis of the status quo, there is a need for education institutions to equip students with the expertise to leverage AI effectively, while also incorporating aspects of adaptability and market awareness as essential attributes of creative training.

Echoing these sentiments, another academic viewing this space from a labour perspective also highlighted the accessibility of AI tools in enabling broader participation in creative endeavours. They contend that while formal education can enhance proficiency, many individuals can learn to use AI tools independently through online resources and experimentation. For them, there is a larger sense of democratisation around creative technology that fosters greater inclusivity and diversity in the creative processes.

An experienced creative leader we interviewed delved into the intricacies of skill acquisition and utilisation in the context of GenAI. They distinguish between direct skills required to operate AI tools and indirect skills needed to integrate AI-driven processes into existing workflows. While one is focused on the use of the technology itself such as via prompt engineering to optimise AI outputs effectively, the other is oriented towards translating creative skills into sustainable careers within an AI-driven landscape. For them there is an essential role also for the entrepreneurial skills, industry connectivity and storytelling acumen in navigating the evolving creative industry. These insights emphasise the need for comprehensive training programs to bridge the gap between creative proficiency and professional success, equipping individuals with the tools to also monetize their creative outputs effectively.

## C. Ownership and IP rights

Emergence of GenAI for creative processes has changed the professional landscape for artists whose work is either integrated in, or impacted by these technologies. As legal and policy frameworks evolve to support transformative technologies, artist concerns over uncertainty about the ownership of AI-generated works, applicability of IP frameworks for the protection of such output, and questions about permissionless use of content in training data are being widely discussed in **courts** and **academic contexts**.

Considering that various individuals contribute to a GenAI tool with different levels of input, the rights in the input level data and the output may often be conflicting. This issue is particularly relevant for data scraped from the web. On the input level, whether training of AI models on publicly available copyrighted content amounts to an infringement is currently unclear and is **treated differently in different jurisdictions.**

Scholarship on these issues also conduct an inquiry on what aspects of input and output data need protections within the copyright framing, and how fair use exceptions should be interpreted in this context. For the **EU**, the 2019 DSM Directive provides two exceptions to rights holders' copyright and database rights to allow reproductions and extractions of lawfully accessible

copyright works and database rights. Under Articles 3 and 4 of the Directive, text and data mining (TDM) conducted for the purpose of scientific research, or for commercial purposes unless the rights holders proactively "opt out" of the exception by reserving their rights "in an appropriate manner such as by machine readable means." This is also translated in the new European Union AI Act and, subject to opt outs, the TDM exception can be interpreted to apply to copyrighted content which is freely available on the internet, even for commercial purposes. AI-related regulations in Japan have also been developed and revised with the goal of maximising AI's positive impact on society, rather than suppressing it out of potential risks. Article 30-4 of Japan's Copyright Law permits the use of copyrighted material such as text and images to train AI, including for commercial use, but does contain a provision stating that such material cannot be used if it would "unreasonably prejudice the interests of the copyright owner".

Additionally, within the USA, recognising the societal benefits of opening access to datasets for GenAI systems on the input level and the practical viability of licensing all underlying copyrighted work within massive AI datasets, studies argue that the fair use exception to copyright should be expanded in scope to cover 'fair learning' as well. As per this argument, copyright law should permit GenAI models to copy works not just for non-expressive purposes within the fair use doctrine as provided for TDM use-cases, and for transformative uses, but to take a 'pluralist view of fair use' and acknowledge the value of permitting copyright works for meaningful social purposes such as education and learning. In the context for AI applications, 'fair learning' would permit the use of input datasets which include copyright works, as long as the purpose of the AI's use is 'to access, learn and use the unprotectable parts of the work' and not to incorporate the copyright elements of a work in the output. In a similar vein, English copyright law details that text and data mining on works accessed lawfully for non-commercial purposes will not amount to copyright infringement. However, even for them, if the copyright works are copied for commercial purposes, by say an AI developer, there is currently no such exception.

Senior professionals we spoke to from the industry emphasise on the need for clarity on this and note the need for protection of the rights of creatives.

> **"On the input side, GenAI is a very disruptive technology, impacting the audio sector and visual creators. We consider the current model on training of GenAI systems with protected works as a big copyright infringement because none of the AI companies have requested permission to use these works to train their machine. There are big discussions nowadays that also debate the viability of opt out features as a real option to protect user IP with assurance that AI companies would respect it."**

In terms of determining the application of copyright frameworks on the output level, the United States copyright office, as well the European Commission's Study on Copyright and New Technologies take cognizance of the need for clarity on questions of ownership and IP protection. Two of the primary challenges that are highlighted in the study conducted by the European Commission include -

### 1. Protectable subject matter – when are AI based inputs and outputs protectable?

The European Union Copyright Directive has been interpreted to protect "literary and artistic works" that satisfy two cumulative conditions "a form of expression" and "an original subject matter". The question of creativity and originality have been studied via various case laws, which prescribe emphasis on elements of free and creative choices that reflect the personality of the author. The 2009 Infopaq judgement elaborated on this requirement as "the choice, sequence and combination of [those] words [that] the author [may express] his or her creativity in an original manner and [achieve] a result which is an intellectual creation".

In the context of AI, this translates to two different considerations for outputs that are made by -

a. **a human author who uses AI as a tool (AI-assisted creation)**: here sufficient intellectual effort free and creative choices must be identified, with which a given creative output may qualify for copyright protection; and

b. **a GenAI-solution autonomously**: principally, in this case, human intervention is essential for copyright protection, and within the EU, courts must determine whether human efforts were essential in the creation of a given human/robot collaborative piece.

To satisfy the burden of proof in establishing original human contribution, in a Harvard Business Review article, Gil Appel, Juliana Neelbauer and David A. Schweidel, recommend new strategies such as audit trails to be developed, that maintain the provenance of AI-generated content, with records on the platform/tools used, the settings employed, and the specific prompts imputed for the creation of the content etc.

## 2. Authorship and Ownership – Who is the holder of rights to AI output and how are these rights holders identified?

Upon identifying works eligible for copyright protection, the question of ownership and authorship gives rise to additional complications. As per the creator doctrine, such ownership principally vests with a natural person who created the work. However, in English copyright law, computer generated work presents an important exception, where "the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken."

In the context of film, this ownership most often lies with "producer of the first fixations of films" or "film producer". Within the GenAI context, it translates to human authors that create with the aid of machines, while showing creativity in "the choice, sequence and combination of [those] words [that] the author [may express] and [achieve] a result which is an intellectual creation".

As noted in the European Commission Study, with increasing sophistication of technology and the inherent nature of content like music or photographs, consumers and CMOs may also not be able to differentiate between AI autonomously generated outputs and those resulting from creative human decisions and interventions.

Hugenholtz and Quintais propose a four-step test on exploring whether an AI production may qualify as a "work" that may be covered within copyright protection:

**Step 1:** Production in literary, scientific or artistic domain in the format of articles, poems, musical compositions, photographs and films etc.;

**Step 2:** Human intellectual effort, with or without the aid of machines;

**Step 3:** Originality/creativity (creative choice) at various levels within the three distinct phases of the creative process, including "conception", "execution" and "redaction";

**Step 4:** Expression signified by a general conception of the work before it is expressed, while leaving room for unintended expressive features.

Interviews across stakeholders also underscore the pressing need for clarity and consistency in IP frameworks in AI-generated content context. An industry expert we spoke to mentioned the challenges posed by the global economy, where companies may exploit regulatory loopholes to evade ethical and inclusive practices. Their insights highlight the complexities of IP enforcement in an interconnected world, emphasising the limitations of regulatory frameworks in curbing unethical behaviour.

Other professionals added nuance to issues around ownership by contextualising the financial implications of evolving IP norms and the intricacies of ownership and profit-sharing arrangements in collaborative artistic endeavours, particularly in industries characterised by complex production processes. A theatre professional highlighted the disruption caused by shifting revenue patterns, with traditional financial models giving way to uncertainty in the digital age. Similarly, lawyers we spoke to mentioned how AI-generated content may influence negotiations among multiple contributors and reshape traditional ownership dynamics. In such uncertain contexts, decisions regarding AI-generated elements, such as soundtracks, are influenced not only by consumer preferences but also by concerns about potential legal liabilities. This enables a risk-averse approach for studios and rightsholders, which in turn has negative consequences for the beneficial adoption of the technology.

Building on how uncertainties in the legal framework might affect junior professionals as against senior players, a senior producer we interviewed also made reference to how there may be diverging perspectives in how creators and studios view concerns regarding AI-generated content, particularly in terms of ownership and compensation. According to them, creators tend to focus on the creative process and rely on either creating content and working out the right frameworks later, or relying on their contractual

agreements with studios. On the other hand, studios are more invested in issues related to ownership and control over AI-generated assets, and often prioritise preserving existing business models. Beyond these they also speak of how most people using the GenAI tools right now are still experimenting with it and remain more fascinated with the functionalities they provide and its potential. According to professionals from the media space, concerns around ownership and IP don't translate as strongly in the context of journalism either, owing to the intricate web of information exchange essential to this inherently collaboration based industry.

Most of the discourse around ownership concerns in the context of GenAI has been focused on the uncertainties in IP rights frameworks. However, lawyers we interviewed also draw parallels with the evolution of the industry around traditional editing tools like Photoshop, and suggest embracing the transformative potential of AI and redefining traditional notions of creativity and ownership. For some of the lawyers and industry experts we interviewed in this space, an important tenet is that copyright was always meant to enable creativity, and while IP protection is essential, it should not hinder innovation and exploration in the realm of creativity alongside GenAI.

## D. Art ecosystem and changing principles

As the Cognitive Load Theory posits, humans have finite working memory to process information. So the possibility of immense amounts of AI-generated content, in addition to the displacement anxieties, could diminish a creator's confidence in producing art or navigating the art ecosystem. However, a lot of the discourse around the exact nature of GenAI's impact is still hypothetical. Multiple interviewees were of the opinion that the next two years will constitute a watershed timeframe for this. To begin with, the uncertainty around the legality of using IP protected content to train and deploy systems, as well as the IP protection status of content generated through GenAI tools is likely to be clarified. This will then allow for a much clearer understanding around the legal ramifications of use of GenAI technologies. However, an additional layer of complication that will need to be addressed is the lack of uniformity in IP regulations across the world. A few

interviewees we spoke with pointed to the need for potential harmony at an international level for GenAI tools to be used uniformly across jurisdictions.

In addition to the legal uncertainty, a few interviewees also expressed a viewpoint that the next two years might be pivotal in understanding how the public at large will view content created with GenAI. Depending on the nature of content created, and its diversity, there might end up being a premium for content created without GenAI. On the flip side, the wide influx of GenAI created content could also begin to train consumers into preferring certain types of content, thereby creating a larger impact on a cultural level. Most interviewees also reiterated the need for further development of GenAI tools to remove biases and guardrails against creation of harmful and illegal content - linking this to widespread adoption of GenAI tools.

Finally, a few interviewees hypothesised that a growing dependence on GenAI tools could take away from cognitive abilities and creativity, especially of creatives at an earlier stage in their career - with this having long-term ramifications, both for the creatives at an individual level, but also for larger organisations.

# Potential pathways to ensure meaningful impact of GenAI on the various factors that affect creative pursuits

# Potential pathways to ensure meaningful impact of GenAI on the various factors that affect creative pursuits

**Our research and conversations with creatives and experts from the field indicate that the contextual changes brought about by GenAI tools present new concerns around rapidly changing skill sets, gaps in legal frameworks and changing notions of authorship and creativity that must be addressed with novel social and techno-legal approaches.**

Additionally, these discussions have highlighted the persistence of structural issues within the AI context for the creative space, including barriers stemming from lack of access, concentration of opportunities and resources and complexity in distinguishing oneself in the creative industry. We believe that there is value in exploring future efforts that leverage the emergence of GenAI as an opportunity to conduct deeper inquiries into these structural barriers, with the aim of overcoming them to some extent.

Addressing both effectively can help realise the immense potential of these technologies as enablers for more vibrant creative ecosystems while minimising the potential harms they may pose. Towards this goal, we have identified future pathways that appear worthy of exploration as the creative industry continues to be impacted by GenAI technology in both significant and subtle ways. These pathways are intended as initial explorations of questions that have been important for the different stakeholders in the ecosystem that we spoke to. We believe that any actionable recommendations following these pathways would be most suitably identified upon deeper analysis on the different scales and contexts that creatives operate within and with co-designed participatory methodologies.

While some measures may be taken at a personal and individual level to adapt to the change, others address broader, structural questions that require systemic support. This dual approach underscores the necessity of both individual adaptability and collective, systemic action. It is crucial that stakeholders within the creative industry, from individual artists to large organisations, engage in ongoing dialogue and collaborative efforts to navigate these changes effectively.

In such context, we see responsibility as flowing from 4 major channels of policy, platform, pedagogy and people

| RESPONSIBILITY | PATHWAYS |
|---|---|
| Platform | 1. Access to hands-on tutorials, interactive learning modules and community forums where artists can engage with peers and experts to exchange knowledge and experiences<br><br>2. Incorporation of GenAI functionalities into pervasive creative tools that artists already use, or adoption of interoperability in tool design, to facilitate accessibility and intuitiveness for tools<br><br>3. Provision of a higher degree of creative control, or the ability to customise the operation of tools in granular ways so as to arrive at their creative vision with precision and active intervention<br><br>4. Collaborative approaches to codesign and develop AI tools by working closely with artists can provide feedback to shape tools that better meet their needs<br><br>5. Reliable free access models and subsidised pricing plans can democratise access to these technologies for small artists and independent creatives<br><br>6. Translated interfaces, instructional materials and support services in multiple languages and tools localised for regional cultural contexts<br><br>7. Open access platforms and repositories that provide free or low-cost access to AI-generated content and educational resources |
| Policy | 1. Clear legal mandates on the use of AI in creative processes as well as the use of artist's work in the training of GenAI to address attribution and the extent of GenAI involvement in creative outputs |

2. Industry standards for AI usage disclosures, supported by artists collectives and professional bodies, and use of labels or certifications indicating the percentage of content generated or assisted by AI

3. Online platforms where creators can share experiences and report misuse of GenAI in a collective manner can enable broader transparency and responsiveness in this evolving ecosystem

4. Best practices to standardise the use of AI across the industry, providing a clear framework for creators to follow

5. Holistic AI strategies that involve coordinated efforts across all departments to ensure that AI integration is thoughtful and comprehensive, addressing the needs and concerns of the entire organisation

| | |
| --- | --- |
| **Pedagogy** | 1. Courses designed to assist artists in understanding not just the use of the tools, but also a deeper understanding on how the technology works and its broader impact on their professions |
| | 2. Support for skills such as prompt engineering, project management and marketing strategies, and how they translate in professional contexts beyond school teachings to ensure that artists can not only create but also thrive commercially |
| | 3. Hands-on experience through real-world projects and live productions, with collaborations with local artists and mentors in the educational process to help young creatives understand the practical applications of AI in their work |
| **People/collectives** | 1. Deeper emphasis on creative problem-solving and entrepreneurship for artists navigating the creative industry via workshops, mentorship programs and collaborative spaces where creatives can learn how to leverage GenAI effectively |
| | 2. Innovative projects that integrate the technologies in the form of interactive GenAI-assisted performances, real-time content adaptation and live AI-human collaborative projects |
| | 3. Advocacy around policies that prioritise protections for creatives adopting GenAI, ensuring that their rights and interests are not minimised |

In the following sections, we elaborate on these future pathways along the 4 major considerations affecting creative undertakings, and ground them in our findings and expert insights. For creatives operating within different contexts, these factors would include -

    A. Technical skill in the use of the tools
    B. Creative talent and ability to navigate the industry
    C. Accessibility of the technology and access to resources
    D. Legal and systemic support structures

## A. Creatives would benefit from supportive systems on the technical skills required in using digital tools for video creation processes

GenAI presents an opportunity to democratise the traditionally high technical skill-driven domain of video production within the creative industry by offering intuitive tools that streamline workflows and enhance efficiency on mechanical tasks around rendering, rotoscoping or post-production editing. However, as these technologies become increasingly integrated into creative processes, deeper inquiry is needed into how they support adaptability of users to emerging skills and processes.

**Pathways to explore**

### 1. Platform-level support and educational resources shared via community and institutional platforms

Support on adapting to the new skills and techniques is paramount for effective utilisation of GenAI tools by creatives. To enable continuous learning for creatives in an evolving space, platforms and educational institutions must offer comprehensive training and upskilling opportunities tailored to the needs of creatives.

Tech and community platforms, including youtube channels such as the AI Video School, can serve as hubs where artists could access hands-on tutorials, interactive learning modules and community forums where artists can engage with peers and experts to exchange knowledge and experiences. These resources help demystify GenAI technologies and provide practical guidance on how to incorporate them into creative projects effectively. This holds the potential to not

only enhance individual capabilities but also to foster curiosity on pushing the boundaries of the functionalities GenAI tools offer for the broader creative community.

Beyond platform based resources, more institutional learning within design schools, for example, can assist artists in understanding not just the use of the tools, but also a deeper understanding on how the technology works and its broader impact on their professions. Initiatives such as the University of South Carolina's Center for Generative AI and Society attempt to leverage the potential of these technologies for their students in socially responsible ways. With courses or modules into such university curricula on the different tools and the general processing within GenAI technology, such spaces can ensure that students are equipped with the skills required to navigate the evolving creative landscape.

As experts we interviewed note - **"similar to courses on learning to operate software like Photoshop, training for GenAI tools will also become part of the education system. It is essential for colleges to expose their students to the tools that are shaping their industry and build a really good sense of the way the market is evolving."**

## 2. Integration into existing workflows and pervasive tools

Interviews with creatives have suggested that for them any meaningful integration of GenAI into their creative process has stemmed from a seamless alignment with existing workflows. One key aspect of this integration is the incorporation of GenAI functionalities into pervasive creative tools that artists already use. Rather than requiring users to switch between different software platforms, GenAI tools may be better utilised by professional artists if they seamlessly integrate with industry-standard software.

A creative we interviewed noted, **"where I have found GenAI to be most useful is when I don't have to go and use another tool and find GenAI applications in my old softwares. Adobe has done this with Acrobat recently, you can now talk to your PDFs and Google Microsoft starting too."**

Additionally, by adopting interoperability in tool design, developers can not only facilitate adoption but also enhance the accessibility and intuitive adoption of GenAI tools for creatives of all skill levels. The optionality in plugging GenAI tools onto legacy software or opting to turn on in-house add-ons for their softwares with GenAI functionalities, tech platforms can enable artists with meeting the potential such tools hold for efficiency and cost reduction.

## B. Creatives need flexibility in tools to realise creative talent and systemic support on navigating the industry industry

GenAI tools enable creators to explore new artistic expressions and problem-solving approaches, transcending traditional technical barriers to realise their creative visions. As one expert noted,

> **"with GenAI tools for artists, it will no longer be about knowing key framing or expertise in technical video editing softwares, but about understanding art styles, visual references and photography techniques, and being able to articulate that in words"**

However, the influx of AI-generated content has also raised concerns around saturation of the landscape, with artists perceiving difficulties in distinguishing their work and personal style amidst a flood of homogenised content. Additionally, ambiguities in the boundaries on creative authorship and ownership for outputs driven by the use of GenAI tools further complicate an artist's ability to negotiate questions of attribution, compensation and protection of IP.

> As per another legal expert from the industry, **"creatives want to be indemnified against any problems that may emerge with rights holders or other legal uncertainties that might affect the protection of their interests in the outputs they produce alongside GenAI tools whether in small or large scale contexts."**

**Pathways to explore**

**1. Enhanced creative control within GenAI tools**

For artists to adopt GenAI in their workflows, they need tools that offer a high degree of creative control, or the ability to customise the operation of tools in granular ways so as to arrive at their creative vision with precision and active intervention. Currently, many GenAI tools provide useful capabilities but often retain limitations on the customizability in terms of the artist's personal touch and vision in pre-production storyboarding or in post production editing. Enhanced creative control on how the technology responds to inputs can enable artists to use GenAI as a true extension of their creativity, rather than feeling constrained by the technology.

In such a context, adopting a collaborative approach to codesign and develop AI tools by working closely with artists can provide feedback to shape tools that better meet their needs and are intuitive for the users.

**2. Emphasis on creative problem-solving and entrepreneurship for navigating the industry**

Established creative collectives and art training based organisations such as the National Youth Theatre can foster a deeper emphasis on creative problem-solving and entrepreneurship to provide crucial support for artists navigating the creative industry. These collectives can offer workshops, mentorship programs and collaborative spaces where creatives can learn how to leverage GenAI effectively. They can support skills such as prompt engineering, project management and marketing strategies, and how they translate in professional contexts beyond school teachings to ensure that artists can not only create but also thrive commercially.

An expert from a similar space we spoke with notes that **"there is a difference in using GenAI on a school project, on a pitch level and for final production. Taking what one is doing non professionally into the professional world is the challenge, and training on how to connect to industry is a gap that the community can try to**

**minimise. We do a lot of work training young actors to act on stage, but we also do a lot of work training young actors to be creative entrepreneurs in the industry, building a sustainable career."**

Moreover, such collectives can act as advocacy groups, pushing for policies that prioritise protections for creatives adopting GenAI, ensuring that their rights and interests are not minimised. Finally, such communities can foster a healthy approach to developments in the industry and stimulate cross-disciplinary collaborations, leading to meaningful projects that blend technology and artistry in audio-visual projects.

### 3. Creative innovation leveraging the novel modalities offered by GenAI technologies

GenAI tools have opened up an array of functionalities, such as interactive search engines, speech or video synthesis, rotoscoping, or rendering and motion capture, that were earlier either too time intensive or inaccessible for small creatives and studios. With new capacities and novel formats offered by these technologies, creative groups can leverage the opportunity to explore innovative projects that integrate the technologies in the form of interactive GenAI-assisted performances, real-time content adaptation and live AI-human collaborative projects. These innovations can attract new audiences and provide fresh, immersive experiences that were previously unimaginable.

Support for innovation can also include providing training and resources for artists to experiment with GenAI, as done by Creative AI Lab, or programs like the AI Film Festival by Runway. These incentives can also come from content and community platforms encouraging showcases for successful projects to inspire others and demonstrate the potential of AI in creative contexts.

## C. Systems must build better accessibility in the technology and support wider access to resources

In a lot of ways, GenAI technology can be seen to have lowered the entry barrier for creative undertakings, allowing individuals to immediately create or visualise ideas at the level of initial pitches at studios to highly complex artistic installations for galleries. By distributing the means to create art among a broader demographic, GenAI has the potential to foster greater diversity and innovation within the creative landscape.

However, concerns persist regarding disparities in access, particularly for marginalised communities and underserved regions, where factors such as availability of requisite digital infrastructures and exposure to the operation and utility of the tools contribute to unequal access, necessitating proactive measures to address these disparities.

**Pathways to explore**

### 1. Tech platform democratisation, localization and support services enable adoption and meaningful engagement with the tools

Implementing free access models and subsidised pricing plans can democratise access to these technologies, enabling a wider range of small artists and independent creatives to leverage AI for larger projects without being limited by cost or resource constraints. It is also essential to show the sustainability and predictability in the subscription models for the use of these technologies, to enable reliable adoption of for professional artists that may depend on it for a living.

An industry expert we spoke with who runs a creative platform noted **"all young people access our website through mobile phones and not on desktops even though that offers a much richer experience. To get people started with creating these beautiful things, you have to work on how many people are actually engaging with the tools and the creations. So the technology must adopt a mobile first approach, and a free approach to cater to young artists – because that's the one they'll use."**

Additionally, by investing in localization and support services, tech companies can ensure that their tools are not only globally accessible but also culturally and contextually relevant, thereby fostering a more inclusive and equitable creative ecosystem. To this end, the technology platforms can prioritise translating interfaces and instructional materials into multiple languages and adapting tools to regional cultural contexts, to lower the barriers to entry for non-English-speaking and culturally diverse users with varying levels of technical proficiency.

Finally, to democratise this access further, establishing open access platforms and repositories that provide free or low-cost access to AI-generated content and educational resources can facilitate a culture of knowledge sharing and collaboration where the technology may support creatives beyond specific tools to-wards a broader artistic evolution.

### 2. Community-centric organisations and creative collectives hold immense capacity to provide training and support on adapting to the changes

Community-centric youth organisations and creative collectives can offer more than just technical training; they can provide a nurturing environment that fosters creativity, innovation and collaboration. By embedding AI education within the context of creative problem-solving and entrepreneurship, these organisa-tions can bridge the gap between traditional artistic practices and modern technological capabilities as more institutional set-ups in universities and workplaces adapt to emerging technologies.

An expert from the field noted, **"a lot of our resource and time should be spent upskilling the basics for early professionals and sharing opportunities within the creative community - as collectives in this space, we should be oriented not just for creating stories together, but also uplifting each other professionally and creating jobs."**

Youth organisations can also offer hands-on experience through real-world projects and live productions, helping young creatives understand the practical applications of AI in their work. By involving local artists and mentors in the educational process, these organisations can create programs that are culturally and

socially relevant, with an opportunity for emerging artists to experiment with GenAI tools for professional contexts with a supportive environment.

## D. Legal and systemic support structures (guardrails) must be prioritised for responsible and equitable adoption of the tools

As GenAI technologies continue to transform the creative industry, the need for robust legal and systemic support structures has become increasingly critical. While the technology advances rapidly, governance frameworks and industry standards must evolve to provide the necessary guardrails. These measures are essential to instil reliability and certainty, enabling the industry to leverage the potential of GenAI effectively and responsibly while addressing persistent systemic concerns.

**Pathways to explore**

### 1. Clarity in institutional mandates and community efforts for transparency and attribution

Transparency and attribution are important pathways towards maintaining the integrity of creative works in an era where GenAI is increasingly prevalent. With the blurred lines between human and AI contributions, it is useful to consider standards for disclosing the extent of AI involvement in an output to establish authorship and ownership. To that end, the creative industry may benefit from clear legal mandates on the use of AI in creative processes as well as the use of artist's work in the training of GenAI to address attribution and the extent of GenAI involvement in creative outputs.

As noted by a legal expert from the field, **"the guidelines by the United States copyright office are helpful because they approach the question of what happens when there is a combination of human and automatized inputs in creations. Whether copyright applies to such combined creations is a complex question, and legal frameworks and community efforts should enable users with clarity on where the boundaries could lie."**

Legal mandates to this end can be implemented in the form of labels or certifications indicating the percentage of content generated or assisted by AI, or industry standards for AI usage disclosures, supported by collectives and professional bodies, to ensure consistency and reliability. This is doubly relevant in the context of video production, where the processes are expansive and involve multiple contributors for an output. Working with artists on such standards can bring out the nuance on the question of how the contributions from the technology can be understood beyond a binary of 'used' and 'not used'.

Alongside formal legal frameworks, community-driven transparency measures can support small creators who may lack the resources or willingness to engage with complex legal systems. Towards this, non-institutional technology driven solutions like invisible watermarking on outputs and tools like Have I been Trained for input detections support artists with agency and protections. Finally, the creation of online platforms where creators can share experiences and report misuse of GenAI in a collective manner can enable broader transparency and responsiveness in this evolving ecosystem.

## 2. Adoption of internal policies for platforms to enable equity and best practices

Platforms that leverage GenAI hold significant power and influence over the creative industry. As such, they have a responsibility to address systemic issues such as pay parity and diversity within their operations. Implementing clear internal policies that promote fairness, equity and transparency is crucial for ensuring that the benefits of GenAI are distributed equitably.

By establishing and enforcing diversity and inclusion policies, platforms can ensure that their AI tools are developed and used in ways that reflect a wide range of perspectives and experiences. This helps mitigate biases in AI outputs and promotes a more diverse and inclusive creative landscape.

Additionally developing best practices can help standardise the use of AI across the industry, providing a clear framework for creators to follow. This can include guidelines on ethical AI usage,

transparency in AI-generated content and strategies for integrating AI into creative workflows responsibly. Similarly, holistic AI strategies that involve coordinated efforts across all departments are also vital. Initiatives such as Journalism AI adopt a similar approach to this question and empower news organisations to use AI responsibly by helping them model internal AI strategies. Such efforts across the industry can ensure that AI integration is thoughtful and comprehensive, addressing the needs and concerns of the entire organisation.

### 3. Prioritising protection of culturally significant artefacts

GenAI holds potential for preserving stories and cultural artefacts for vulnerable communities and native populations lacking extensive resources. However, any efforts in leveraging such tools for culturally significant outputs, like video animations for practices and histories for native populations or language restoration projects with audio-visual repositories would need reliable control over how their cultural artefacts and stories are used, shared and stored. With efforts to localise the technology with appropriate representation in their design and development, as well building optionality in open access resources that can retain decentralised control, GenAI can enable valuable use cases for culturally significant artefacts.

# Concluding remarks
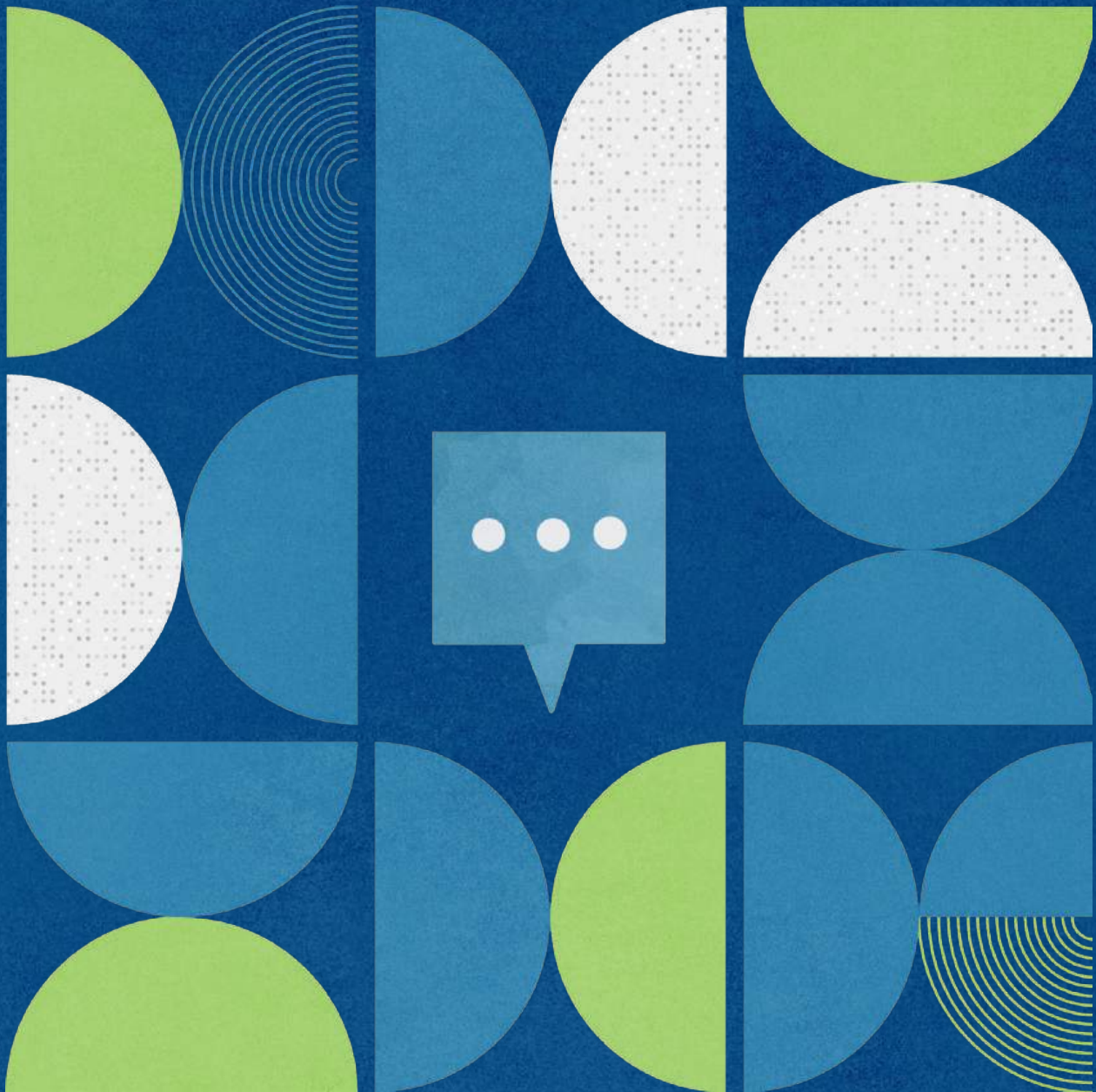
# Concluding remarks

This research has been conducted as a six-week exploratory project to examine the impact of GenAI technologies on the video creation industry. Our research involved interviews with academics and creatives, encompassing diverse modes of content creation, from social media to films and art. We conducted 15 interviews and supplemented these conversations with secondary literature analysis, focusing on the UK and EU.

**The insights gathered highlight that the framing in popular discourse of "video creatives" as a singular unit is not just limiting but also erroneous in understanding the impact of GenAI technologies.**

The engagement of individuals with technology is based on the status or type of the creative themselves - smaller, independent creatives are most likely to use these technologies and view them as having transformative potential in enabling them to create content that resembles those created using high-budget equipment. To them, GenAI serves as a tool that can democratise resources and build a degree of freedom. More established creatives, especially those working in the film industry, have a more conservative view of GenAI technologies but believe that these tools offer efficiency and assistance in executive tasks. This has implications for budgets and over time, the need for human resources. The common demand across most creatives was the need for the development of skills that would enable them to better understand how these technologies worked and operate them.

Drawing from these insights and the articulation of future trends and expectations from the creatives and experts that participated in this research, we arrived at pathways that should be explored in the future for the deliberate and meaningful adoption of GenAI in the creative industry. Our study primarily aims to scope the

ecosystem and articulate first-hand impressions on the broader impact of this technology. To formulate more granular recommendations, it is essential to conduct deeper studies focusing on various aspects of video production and the unique considerations of differently placed artists, including scale of operation, social privilege and geography. Such detailed investigations will help in identifying specific challenges and opportunities for various segments within the creative community.

Furthermore, it is essential to co-design solutions with creatives, ensuring that any recommendations or interventions are grounded in real-world experiences rather than wide-sweep generalisations. This collaborative approach can be facilitated through workshops, surveys and cross-disciplinary collaborations that engage with the social, economic and legal dimensions of GenAI use. By directly involving artists in the design and implementation of these solutions, we can ensure that the outcomes are both practical and beneficial to the creative community.

While our study provides a starting point, the ongoing engagement and collaboration with creatives will be crucial in harnessing the full potential of GenAI. By assessing the impact of GenAI from an intersectional perspective, unpacking economic, social and cultural outflows, we can begin to realise a more inclusive, innovative and resilient creative ecosystem that provides the necessary guardrails and support systems to effectively leverage the advancements of GenAI technology.
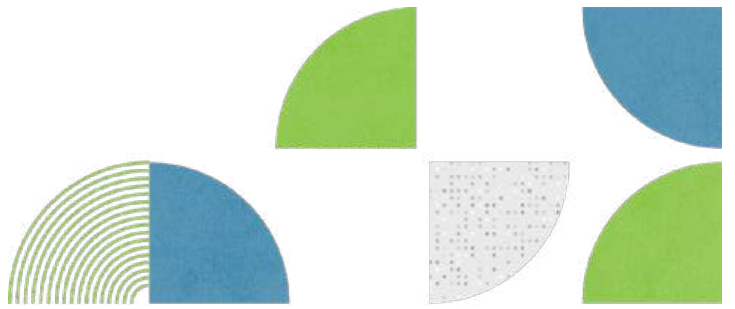
## aapti institute

Aapti is a public research institute that works at the intersection of technology and society. Aapti examines the ways in which people interact and negotiate with technology both offline and online.

contact@aapti.in | www.aapti.in