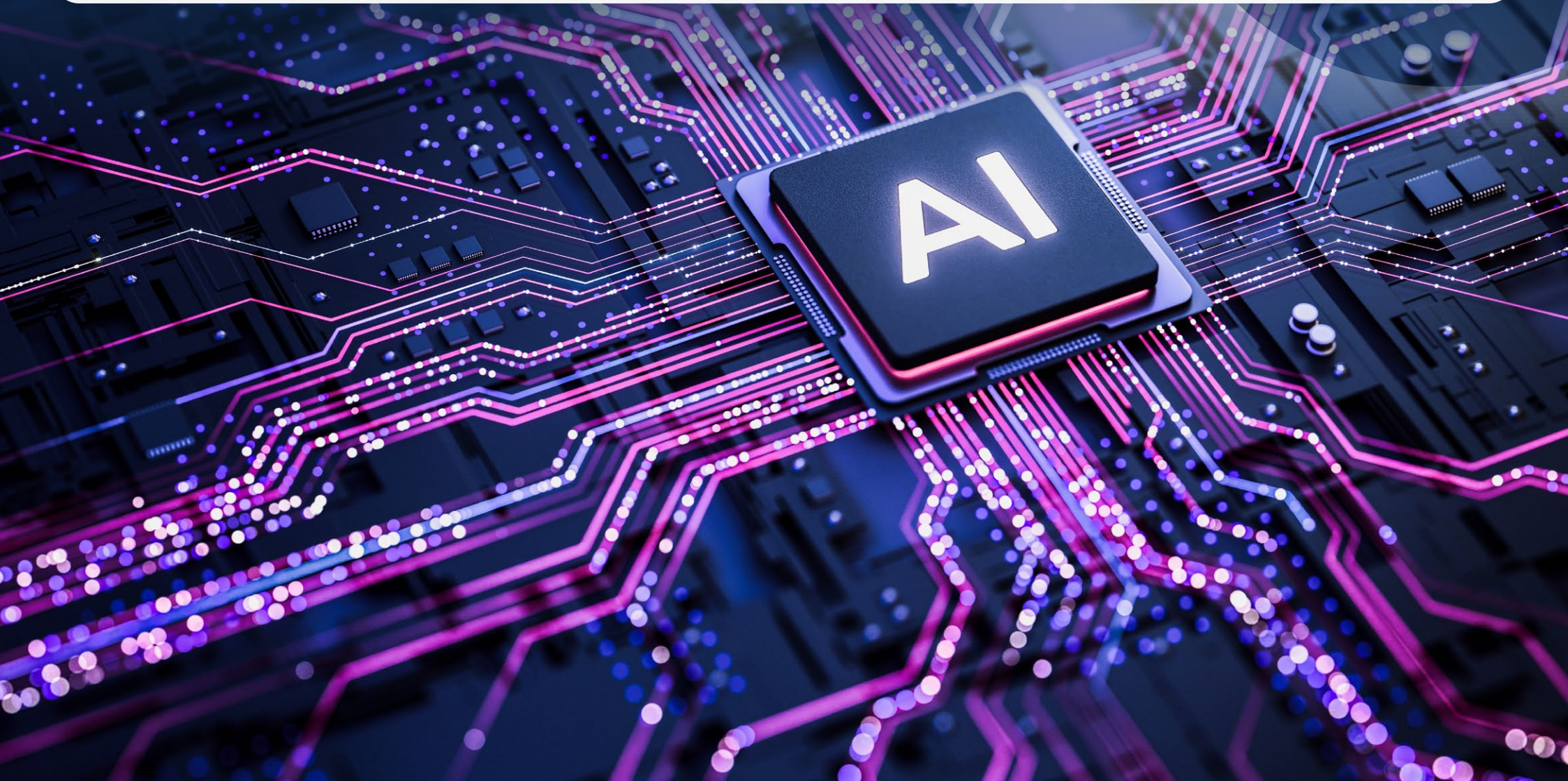


AI and the Future Television Ecosystem

Opportunities, challenges and strategic considerations

A DTG Workshop Report
March 2026



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Introduction

Artificial intelligence is moving rapidly from experimentation to practical deployment across the television industry. Tools that were once used for relatively isolated tasks, such as transcription, metadata generation, editing assistance or recommendation, are now being applied across the entire media value chain. This includes content development and production workflows, archive management, distribution, discovery, monetisation and internal operational processes.

In March 2026, the Digital TV Group's (DTG) Technology Strategy Group convened an industry workshop bringing together broadcasters, technology vendors, platform operators and device manufacturers to explore the practical implications of AI.

The purpose of the session was not simply to identify potential use cases, but to examine what the growing adoption of AI may mean for the industry as a whole, commercially, operationally and strategically.

This paper brings together the key themes emerging from those discussions. It highlights where AI is already being applied across the television value chain, the opportunities it may unlock, and the wider issues organisations may need to consider as adoption accelerates.

At its core, the discussion is no longer simply about whether AI will be adopted. The more important questions are where value will sit, how control points within the ecosystem may shift, and how organisations can deploy AI in a way that is both commercially viable and operationally sustainable.

AI is shifting where value sits in the television ecosystem

The workshop discussions suggested that AI is not just introducing new tools. It is changing where competitive advantage may sit across the value chain.

- Content creation is becoming easier and more accessible
- Content volume is increasing rapidly
- The ability to curate, structure, surface and monetise content is becoming more important than creation alone

Why this matters for the television industry

The workshop highlighted several ways in which AI could influence the future television ecosystem and help organisations improve both speed to market and profitability.

- AI will significantly accelerate content development and production workflows, enabling faster creative experimentation and reducing the cost and time required to develop programme concepts
- AI-driven tools will unlock new value from existing content libraries by enhancing archival material, generating metadata and enabling content to be repurposed

- across new platforms and markets
- As the volume of available content increases, AI-powered discovery and personalisation systems can play an increasingly important role in helping audiences navigate expanding media catalogues
- AI may improve operational efficiency across media organisations through automation of tasks such as transcription, metadata tagging, compliance checks and software development support
- The growing use of AI in broadcasting raises strategic questions around data ownership, regulatory compliance, governance, cost and workforce skills that the industry will need to address collaboratively

Taken together, these developments suggest that AI should not be viewed simply as a productivity layer. It is likely to reshape how value is created, distributed and captured across the television ecosystem.

AI Applications Across the Television Value Chain

Content creation and production

Applications

Participants highlighted several areas where AI is already being applied in content development and production.

AI tools capable of generating scripts, storyboards, concept visuals and rough edits allow production teams to explore ideas more rapidly than traditional workflows permit. This can reduce the time and cost required to develop programme proposals and expand the pool of potential ideas entering the commissioning process.

AI can also support localisation and versioning at an earlier stage of production. For example, it may help create different language versions of the same content more efficiently, allowing content to be prepared for multiple markets in parallel rather than sequentially.

Machine learning systems are also increasingly being used to automate visual effects and image manipulation tasks such as facial replacement, background generation, scene reconstruction and colour grading because the systems are quite easy to train on these tasks. In some areas, AI is helping to democratise access to production capability, allowing smaller organisations or independent creators to produce content that would previously have required more substantial technical infrastructure.

At the same time, participants noted that AI is lowering barriers to content creation in a way that is likely to produce a significantly larger funnel of material entering the commissioning process. This may create opportunities for greater creative experimentation and a broader range of ideas, but it also raises important questions around how this material is stored, distributed, reviewed and surfaced to audiences.

The more strategic question is whether this increased volume will yield more high-quality “diamond” content, or simply more lower-value output. In practice, the outcome is likely to depend heavily on the strength of editorial and approval processes. Participants also noted a growing risk that AI-generated outputs may be created faster than organisations are able to evaluate them effectively. This places greater importance on ensuring that staff are not only equipped to review content at speed, but are also trained to recognise what good quality looks like in an AI-assisted environment.

Considerations

- A significant increase in content supply may place pressure on discovery systems and audience attention
- AI-generated content raises questions around intellectual property, authorship and regulatory oversight
- The industry may need to place greater emphasis on editorial filtering and approval processes as content volume increases
- Participants broadly agreed that creative direction and editorial judgement are likely to remain human-led activities



More content does not automatically mean better content

AI is expanding the pipeline of ideas entering the commissioning process.

What this means

The ability to create content more easily does not remove the need for strong editorial judgement. In fact, it increases the importance of approval, selection and curation as core control points in the value chain.

Archive enhancement and content repurposing

Applications

Participants identified content archives as an area where AI may deliver substantial practical and commercial benefits.

Broadcasters and content owners often hold extensive libraries containing thousands of hours of historical programming. Much of this content was produced for legacy formats and may not be optimised for modern viewing environments or distribution channels.

AI-driven tools can enhance this material through techniques such as video upscaling, frame restoration and automated colour correction. This can improve the usability and commercial viability of older content.

AI can also automate the generation of metadata. Speech recognition models can produce transcripts and subtitles, while computer vision systems can identify objects, locations, people and events within video material. This has the potential to improve searchability, content management and discoverability.

Participants also discussed how AI could support the repurposing of content for new platforms. Long-form programming can be segmented into shorter clips suitable for social media distribution or mobile viewing. AI-driven localisation tools may enable content to be translated, subtitled or adapted for international markets more efficiently.

AI also supports more advanced content reformatting, including transformation into vertical video for mobile-first platforms and the creation of multiple content versions for different devices or audiences.

More complex processes, such as 3D versioning, were considered only realistically scalable through AI.

However, participants also highlighted that challenges remain in workflows between archived content and its representation, particularly around timecode alignment and consistency. These issues can limit scalability, but AI offers the potential to streamline processes and improve consistency across large content libraries.

Considerations

- Enhanced metadata may improve content searchability and catalogue management
- AI may unlock additional commercial value from underutilised archive libraries
- Repurposing tools could significantly increase the amount of content available across digital platforms
- Existing workflow issues, including timecode and metadata consistency, may need to be addressed to fully realise these benefits

Metadata is becoming as valuable as content itself

AI enables content to be enriched, repurposed and rediscovered.

What this means

The long-term value of content libraries increasingly depends not just on what they contain, but on how well that content is structured, searchable and adaptable for new platforms and audiences.

Content discovery and personalisation

Applications

As the volume of available content continues to grow, participants highlighted content discovery as a central challenge for both broadcasters and audiences.

AI-based recommendation systems offer one potential solution by enabling more sophisticated forms of personalisation. While traditional recommendation systems typically rely on viewing history and basic user preferences, more advanced models may incorporate contextual signals such as device type, time of day, broader viewing behaviour across platforms and, in some cases, external indicators such as social media trends.

Participants also discussed the possibility that AI systems could act not only as recommendation engines, but as editorial guides. In this model, AI could help audiences discover content beyond their usual viewing habits, introducing greater diversity into viewing journeys rather than simply reinforcing known preferences.

There was also discussion around the opportunity for AI to link together data in real time to support live events and live viewing experiences, although this was recognised as more challenging than on-demand catalogue discovery due to the limited availability of prior engagement signals.

Considerations

- Data ownership and control may become increasingly important in environments where content is distributed through third-party platforms
- The organisation that controls viewer data may ultimately control the viewer relationship
- Transparency and user trust will remain essential as personalisation technologies evolve
- There is a need for more high-quality, connected data across devices and platforms to better match content and advertising with user preferences and moods

Discovery is becoming the primary battleground

In a world of content abundance, visibility determines value.

What this means

As content supply expands, the organisations best placed to create value may not be those producing the most content, but those best able to surface the right content to the right audience at the right time.

Advertising and monetisation

Applications

Participants explored how AI could improve advertising effectiveness and revenue generation across the television ecosystem.

AI-driven dynamic advertising insertion may enable advertisements to be targeted more precisely based on viewer behaviour, contextual signals and, potentially in future, emotional or mood-based signals. Some participants also discussed the longer-term possibility that AI could help create or adapt advertising creative dynamically in response to audience response or context.

There was also discussion around the use of AI to identify more appropriate moments within programmes for advertising insertion, with the aim of minimising disruption to narrative flow and improving viewer experience.

Lowering the barrier to content production and content generation, as referenced earlier, could also lead to a wider range of content inventory across which advertising can be distributed. This may create more opportunities for targeted advertising and monetisation of niche or highly personalised content.

More advanced concepts discussed included dynamic product placement and region-specific modifications to visual elements within programmes.

Considerations

- Advertising innovation must operate within existing contractual and rights frameworks
- Licensing agreements may limit the extent to which programmes can be modified after production

- AI may create new monetisation opportunities, but also greater competition for attention across a broader range of content
- As advertising becomes more targeted, measurement and attribution may become more complex

The long tail is expanding, but monetisation is not guaranteed

AI enables hyper-local and highly personalised content that may support more targeted advertising.

What this means

The ability to create and distribute more niche content may increase advertising opportunity, but sustainable monetisation will depend on how effectively fragmented audiences can be reached, measured and commercialised.

Accessibility

Applications

Accessibility was identified as another area where AI may deliver meaningful benefits.

Automated captioning and subtitle generation are already widely used in many media environments, and improvements in speech recognition technology are making these systems increasingly accurate and capable of supporting multiple languages.

Participants also discussed the potential for AI to support services such as automated sign-language generation and enhanced audio description. These tools could expand access to content and help make services more inclusive for a broader range of audiences.

Considerations

- Accessibility services often operate within regulatory frameworks
- AI-generated outputs may require human verification before being used in broadcast environments
- AI may support broader access to content, but compliance and quality assurance remain essential

AI could make accessibility more scalable, but not less important

AI has the potential to expand access through automated captioning, subtitling, translation, sign-language generation and audio description.

What this means

- Accessibility services will become easier and faster to produce at scale
- AI could help broaden access across more content and more markets
- Human oversight and regulatory compliance will remain essential to ensure quality and trust

Operational and technical applications

Applications

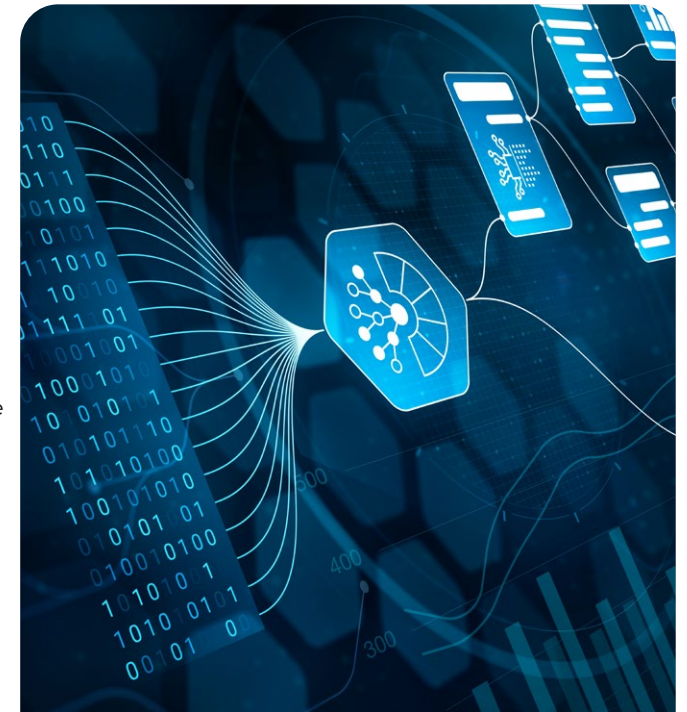
Beyond content creation, AI is increasingly being applied to operational workflows and internal processes within media organisations.

Participants highlighted a range of applications including automated transcription, metadata tagging, content classification and compliance checks. These are areas where AI may help reduce repetitive manual work and improve operational efficiency.

AI is also being used within software development workflows, where tools capable of generating or completing code can accelerate development processes and support engineering teams. This was seen as a particularly active area of experimentation, although with varying levels of confidence around quality and reliability.

Considerations

- AI-generated code requires careful verification and testing, particularly in regulated environments where reliability and security are essential
- AI is currently best viewed as a productivity tool that augments human expertise rather than replacing it
- Organisations may need stronger internal frameworks to evaluate where AI is genuinely useful and where it may create more effort than it removes



AI can deliver significant value in the least visible parts of the workflow

Many of the most practical early applications of AI sit behind the scenes, in areas such as transcription, metadata tagging, compliance checking and software development support.

What this means

- Some of the fastest returns from AI may come from operational efficiency rather than audience-facing innovation
- Organisations will need frameworks to distinguish between useful automation and low-value experimentation
- The long-term advantage may lie in how well AI is integrated into workflows, not just where it is deployed

Distribution and infrastructure considerations

Applications

The increasing availability of AI-generated content and higher-resolution video formats may place additional demands on distribution infrastructure.

Participants discussed how AI could help address these challenges through predictive modelling and resource optimisation. Predictive systems could analyse historical viewing behaviour, social media trends and regional demand signals to anticipate spikes in network traffic. This information could help optimise content placement within distribution networks and allocate bandwidth more efficiently.

This was seen as particularly relevant during large live events and peak viewing periods, where AI may support more dynamic and responsive infrastructure management.

Considerations

- AI-generated content and higher-resolution formats may increase demand on distribution networks
- Predictive modelling may become increasingly important during large live events and peak viewing periods
- Efficiency gains in content creation may create new pressure elsewhere in the value chain, particularly around storage, bandwidth and delivery

AI shifts pressure onto infrastructure

Efficiency gains in one part of the value chain often create demand elsewhere.

What this means

As content becomes easier to create and adapt, infrastructure, distribution and delivery become more critical enablers of scale.



Key takeaways

The workshop discussions highlighted several important issues about the emerging role of artificial intelligence within the television ecosystem.

- AI tools may significantly improve operational efficiency and reduce the time required to develop, manage and distribute television content
- As content volumes increase, discovery, audience attention and data ownership may become increasingly important strategic considerations
- The adoption of AI within broadcasting will require careful governance, regulatory awareness and continued investment in workforce skills
- The greatest opportunities may not sit solely in content creation, but in the systems that enrich, organise, surface and monetise content at scale
- AI adoption is likely to increase pressure on existing rights, infrastructure and operational frameworks

The conversations also highlighted the need for a more consistent and structured approach to AI adoption.

Participants noted the importance of moving beyond isolated experimentation towards more integrated approaches, where AI tools can be evaluated and deployed within a coherent framework. This may include more centralised platforms or integration layers that allow organisations to assess where AI adds value, where it introduces risk, and where human oversight remains essential.

There was also recognition that organisations need a broader understanding of AI beyond generative AI alone. Machine learning, deep learning, automation and model governance all form part of the wider picture. As a result, there is a growing need for AI subject matter experts who can interpret developments critically and help organisations make informed decisions.



A recurring theme throughout the workshop was the importance of being able to determine the likely benefits and considerations of any AI application before moving into live trials. This suggests a need for practical frameworks that allow use cases to be triaged consistently and evaluated objectively.

Industry is showing willingness to collaborate and share resources to take full advantage of the new technology and ensure a trusted high quality standard.

AI is not just a technology shift. It is a structural shift

AI is changing how value is created, controlled and captured across the television ecosystem.

What this means

The organisations that succeed are unlikely to be those that simply adopt the most tools, but those that understand where AI genuinely creates value and how it fits into a broader strategic and operational framework.

Next steps and recommendations

Next steps

While participants identified significant opportunities for AI within the television industry, the workshop also highlighted the importance of coordinated industry engagement.

Several areas were identified where collaborative work may be beneficial, including:

- AI governance and ethical guidelines
- Identification of where guardrails are needed, for example in relation to regulation, security and content provenance
- Interoperability standards for AI-driven workflows
- Data management frameworks
- Skills development and training initiatives
- Approaches to rights flexibility and scalable AI deployment

Participants suggested that the Digital TV Group should play an important role in facilitating this collaboration and helping organisations navigate the practical challenges associated with AI adoption.

This is where DTG's role becomes particularly important. The challenges raised by AI are not confined to any one part of the industry. They cut across broadcasters, technology providers, platforms, device manufacturers and regulators.

Addressing them effectively requires a shared forum in which emerging issues can be tested, challenged and developed collaboratively. The DTG has committed to integrating its findings into the Future TV Experience report.

Recommendations

Based on the themes emerging from the workshop, several areas stand out as priorities for industry attention:

1. Develop practical frameworks for AI evaluation

Organisations should be supported in assessing AI use cases consistently, including likely benefits, risks, cost implications and governance requirements.

2. Strengthen data and metadata foundations

Many of the most valuable AI use cases depend on structured, high-quality data. Investment in metadata, interoperability and workflow consistency is likely to be a prerequisite for scale.

3. Build governance into deployment from the outset

AI adoption in broadcasting must be aligned with regulatory, ethical and operational requirements. Governance should be treated as a core enabler rather than a late-stage control.

4. Support skills development and internal capability

The industry will need stronger AI literacy, subject matter expertise and clearer knowledge frameworks to ensure AI is used effectively and responsibly.

5. Continue collaborative industry discussion

Many of the issues raised, including rights, infrastructure, provenance and trust, are not solvable by any one organisation in isolation.

The DTG is well placed to support this work by providing a forum where broadcasters, technology providers, platforms and device manufacturers can share learning, test ideas and help shape collective industry responses.

As AI continues to reshape the television ecosystem, engagement in these conversations will be increasingly important for organisations that want not only to understand change, but to influence it.

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