VERITONE | FUTURE

Pulse Check on AI Adoption

How the TV industry uses AI today and where it's headed

Television Adapts to a Pandemic and Prepares for the Future

When we began working on this report in early 2020, we couldn't predict the massive changes to daily life looming on the horizon. In shared isolation, we saw the COVID-19 pandemic quickly spread to every corner of the world, changing the way we live and work — and often blurring the distinction between these terms.

Like every other industry, television has been significantly impacted by this pandemic. With viewers consuming massive amounts of content, creators face unprecedented challenges when it comes to managing, producing and distributing it. At the same time, organizations that rely on close collaboration and careful oversight are finding ways to work remotely. We've been inspired by the ways TV organizations have adapted and found ways to give audiences the comfort and predictability of regular programming in an otherwise unstable time.

Although certain activities may resume in the not-too-distant future, everyone seems to recognize that this period will have long-lasting effects, especially as it relates to our reliance on technology. For example, when we conducted this survey earlier this year, respondents indicated a hesitancy to adopt automation. Undoubtedly, the COVID-19 pandemic has already transformed many respondents' views and demonstrated why television organizations must be more nimble and technologically savvy than ever.

Because it offers a faster alternative to manual processes and enables remote-work-friendly deployment, AI-infused technology is poised to help television organizations navigate the "new normal." It's clear that maximizing resources is critically important. Soon, more organizations will lean on AI and other progressive technologies to efficiently complete tasks and unearth additional revenue through robust analytical capabilities.

The lessons learned and habits formed during this crisis will inevitably shape post-pandemic life. When businesses reopen their doors, crowds gather and television production no longer requires a homebound crew, organizations will search for technology that streamlines work and helps them prepare for future crises.

The world — and television industry — is evolving by the day. But the last few months have shown that media organizations are uniquely prepared to embrace technology and meet these unpredictable challenges head on.

Ryan Steelberg
President, Veritone

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Introduction

AI on the agenda

For consumers, entertainment is easy. At any time of day, the press of a button, a few clicks or a swift swipe bring you face-to-face with the content you're looking for.

But anyone working within the television industry knows this simplicity is the result of complex processes and decisions at every turn. From metadata creation to content licensing to post production, these processes are time consuming, but important for operational efficiency and revenue growth. **As technology advances, many TV organizations have begun to wonder if artificial intelligence (AI) can spur innovations that streamline these tasks, set them apart from competitors and shed light on opportunities for revenue improvement.**

Increasingly, that seems to be the case. Organizations are slowly turning to AI to track, analyze and monetize content more effectively, unlocking operational efficiencies and generating new revenue streams. AI has the potential to elevate efficiency, help differentiation and boost revenue in the TV industry, but only if leveraged correctly. Given its relatively recent emergence, many organizations struggle to employ this technology correctly and strategically.

To gain a deeper understanding of attitudes, experiences and perceptions about artificial intelligence in television, Veritone and Future Media Entertainment Group surveyed leaders in media and entertainment organizations. While most companies have introduced AI for some tasks, widespread adoption remains on the horizon — and as many of these leaders seem to realize, the organizations that make this transition first will reap the rewards.

Key Findings

01

AI adoption is common, but on a small scale. Many TV organizations have yet to fully take advantage of artificial intelligence.

02

The opportunity for differentiation attracts television companies to AI solutions, as the majority of respondents view it as a competitive necessity.

03

Budgetary restrictions and lack of knowledge are the key factors preventing AI from achieving widespread usage.
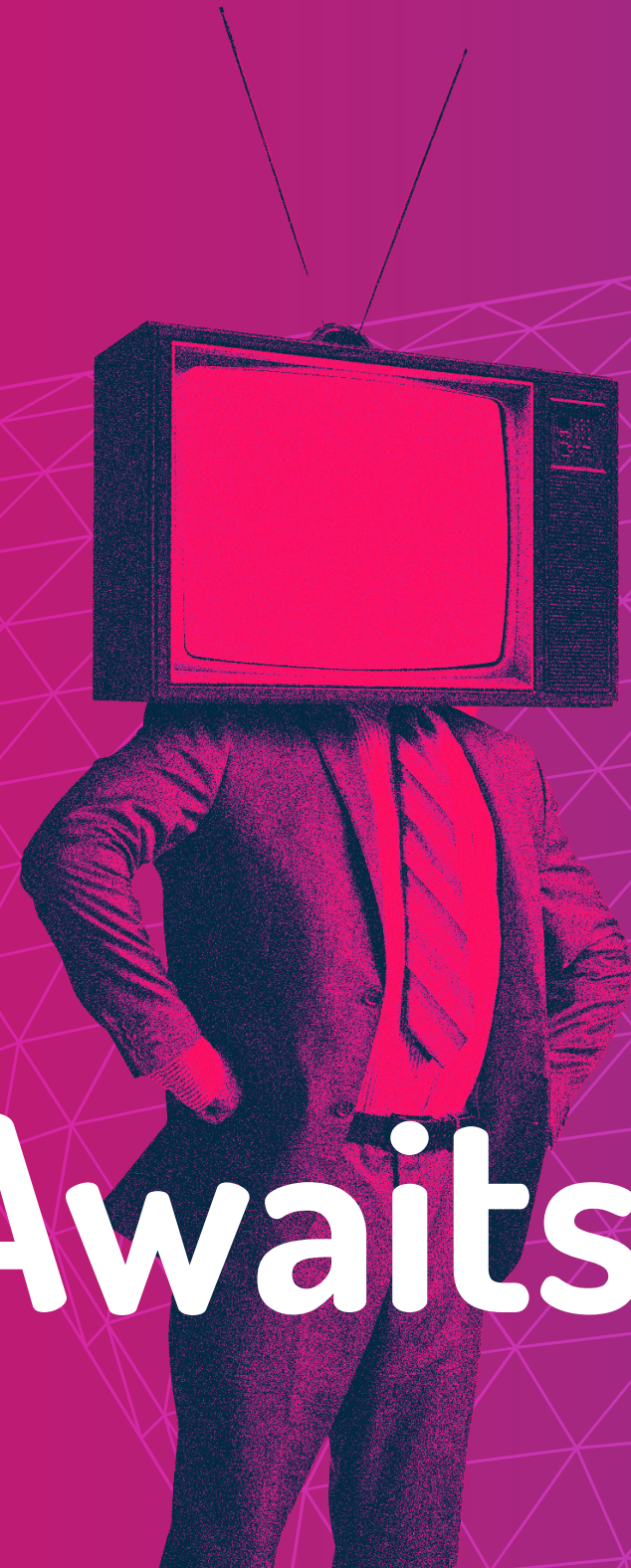
04

Companies have seen mixed results in their AI initiatives, with larger organizations reporting the most satisfaction.

05

Business and tech employees disagree on the scale and strategy of AI efforts, revealing internal misalignments and differing priorities.

AI in TV:
Full-Scale Adoption Awaits

Implementation ramps up

In the TV industry, AI implementation is becoming the norm — sort of. While the majority of survey respondents (54%) say they're currently making a conscious and strategic effort to implement AI in their organizations, these efforts aren't being pursued urgently. A larger percentage of respondents (60%) say they're likely to use AI tools five years from now than those that identified a timetable of three years.

Why not AI?

So, why do TV organizations feel comfortable pushing off AI efforts for half a decade? Responses overwhelmingly point to uncertainty as the culprit behind half-hearted automation adoption. Fifty percent of survey respondents identify a lack of knowledge about potential benefits as a factor fueling AI hesitancy, perhaps contributing to the large number (50%) who see budget restrictions as a roadblock and say it doesn't mesh with established workflows (40%). **These results show that fulfilling AI's promise may rest on greater awareness and education, with wider implementation coming once organizations experience the value of automation firsthand.**
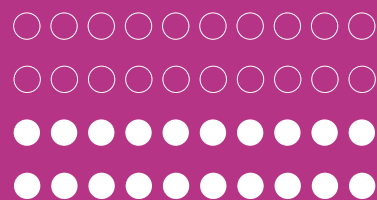
50%
of survey respondents identify a lack of knowledge about potential benefits as a factor fueling AI hesitancy

Top 4 reasons TV orgs have chosen not to adopt AI tools at the moment

Budget restrictions

Lack of knowledge/ understanding about potential benefits

Beliefs that AI doesn't mesh with established workflows

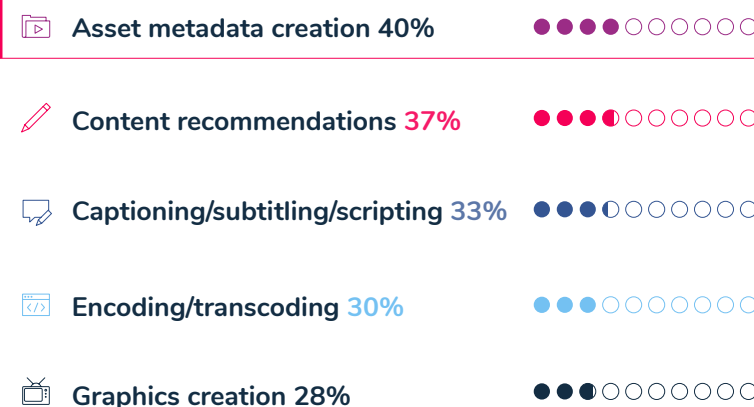Concerns AI won't deliver benefits promised

AI's evolving role in TV

Most television organizations have implemented AI in some capacity — just 12% of those surveyed claim to have no AI-infused processes. Still, AI's use in television is in its infancy: While over 50% of those surveyed say they have AI, those AI-powered tools are only currently deployed across 10–20% of their processes. As automation technology advances and organizations discover how to best apply its power across their operations, this number seems primed for growth.

Today, most businesses employ AI to complete repetitive, time-consuming tasks. Respondents indicate asset metadata creation (40%), content recommendations (37%) and captioning/subtitling/scripting (33%) as the top uses of artificial intelligence. While they are no doubt benefitting from reduced costs and time savings by using AI to complete these tasks, a whole realm of operation-enhancing features — from audience analytics to advertising performance tracking — await widespread discovery. In the next three to five years, our respondents anticipate a subtle shift, identifying the top tasks ripe for the use of AI as asset metadata creation/enrichment (60%), captioning/subtitling/scripting (58%) and content recommendations (49%).

"As automation technology advances and organizations discover how to best apply its power across their operations, AI adoption seems primed for growth."

Top 5 business processes to employ the use of AI today

Asset metadata creation 40%	●●●●○○○○○○
Content recommendations 37%	●●●◐○○○○○○
Captioning/subtitling/scripting 33%	●●●◐○○○○○○
Encoding/transcoding 30%	●●●○○○○○○○
Graphics creation 28%	●●●○○○○○○○

Top 5 business processes TV respondents feel will use AI at their organization within 3–5 years

Asset metadata creation 60%	●●●●●●○○○○
Captioning/subtitling/scripting 58%	●●●●●●○○○○
Content recommendations 49%	●●●●●○○○○○
Encoding/transcoding 44%	●●●●◐○○○○○
Video editing 44%	●●●●◐○○○○○
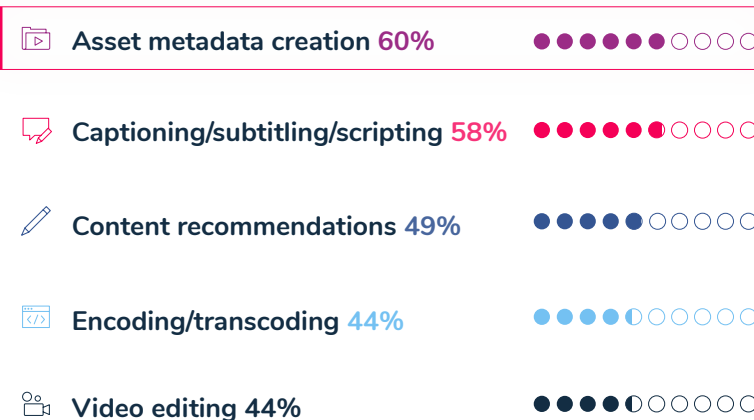
A differentiator with mixed results

As more TV organizations begin implementing AI, their primary motivation is clear: It's a competitive necessity. The majority of respondents identified the main driver of their process-based use of AI as the "opportunity for competitive products/services, innovation and differentiation." Organizations hope to leverage AI in ways that set them apart, making differentiation a more significant motivator than even cutting costs (44%) and saving time (40%).

However, TV respondents experience mixed results from their AI initiatives. In general, their feelings fall into one of two camps: (1) the jury is still out or (2) it depends. The data may show uncertain opinions of AI, but it's difficult to say whether this stems from limited adoption, a lack of training that would enable strategic use or automation just needing more time to demonstrate its value. But regardless, the survey shows room for improvement in education about AI and assessing additional use cases for its application.

"**Organizations hope to leverage AI in ways that set them apart, making differentiation a more significant motivator than even cutting costs and saving time.**"

Are you satisfied with the results of your AI initiatives?

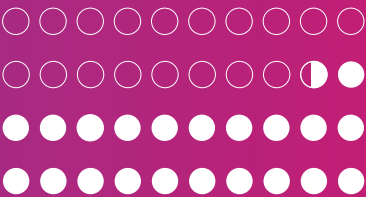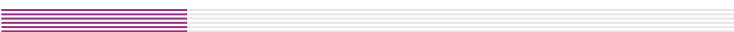**Mixed results depending on the initiative 37%**

Yes, the results met my expectations 18%

Yes, the results exceeded my expectations 14%

I don't know 32%

54%
of respondents identify the "opportunity for competitive product/service, innovation and differentiation" as the main driver for process-based use of AI.
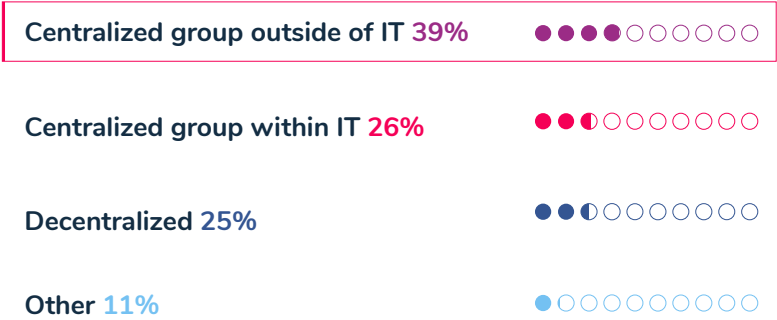
Centralizing AI implementation

While approaches to artificial intelligence adoption vary for each organization, they broadly prefer to deploy an AI strategy through a centralized approach. However, the group tasked with AI implementation tends to be outside of IT — a potential formula for adopting AI in practical and valuable ways. When this "dedicated group" includes both business and technology leaders, organizations can implement artificial intelligence easily, effectively and in ways that serve organizational goals.
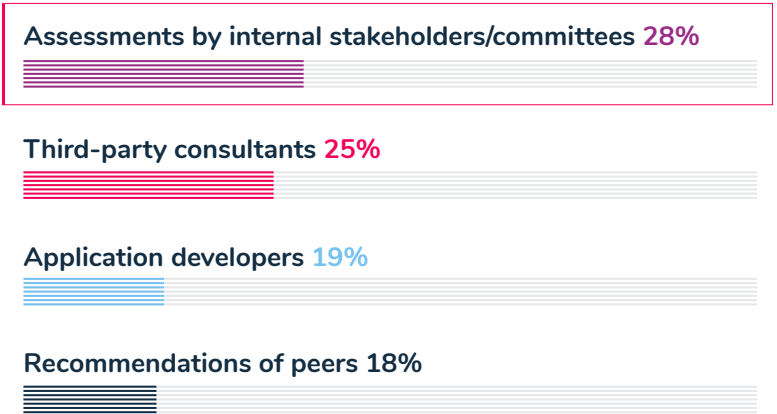
Meanwhile, the best process for selecting AI tools has yet to be solidified. Respondents say their companies are almost as likely to rely on assessments by internal stakeholders as third-party consultants. A reliance on internal opinions may also explain limited implementation and success to date, especially if these decision-makers are ill-informed or allow hesitancy to influence their choices.

"When this 'dedicated group' includes both business and technology leaders, organizations can implement artificial intelligence easily, effectively and in ways that serve organizational goals."

What approach is your company taking to implement AI?

Centralized group outside of IT **39%**

Centralized group within IT **26%**

Decentralized **25%**

Other **11%**

What companies rely on when choosing AI tools

Assessments by internal stakeholders/committees **28%**

Third-party consultants **25%**

Application developers **19%**

Recommendations of peers 18%

Successful AI Initiatives

What's in the Way?

The business/tech disconnect

When it comes to AI implementation strategies in television organizations, there's a disconnect between the business and tech sides at the executive level. Most CEO respondents (63%) believe their companies are making conscious/strategic decisions to implement automation, while only 30% of CTOs say the same. When it comes to their companies' specific approaches, the divide is even starker — 91% of CEOs label their approach as centralized, but zero CTO respondents agree. **Such a significant misalignment at the highest level may be hindering the success of AI implementation.** If the C-suite is unclear on the organization's strategy, the rest of the organization is likely to also be unsure.

These numbers could also signify a difference in perspective. CTOs may see or hear of AI manifestations on the ground that don't mesh neatly with the CEO's overarching plans. **These discrepancies may not necessarily stand in the way of successful AI implementation, but they do highlight a need for clearer intra-organizational communication about artificial intelligence strategies.** Additionally, this disconnect may reveal a need for clearer implementation strategies and resource plans. Many studies suggest that an organizational structure that aligns business and tech resources is a key element of successful AI implementation.

"These discrepancies may not necessarily stand in the way of successful AI implementation, but they do highlight a need for clearer intra-organizational communication about artificial intelligence strategies."
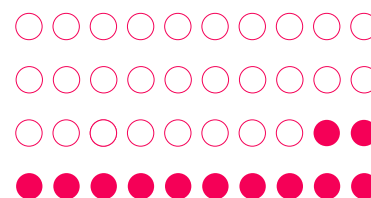
A majority of CEOs see strategic AI implementation.
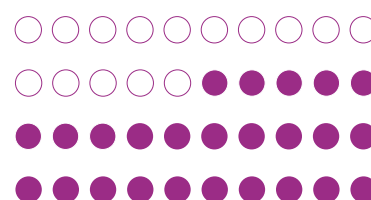
63%
of CEO respondents believe their companies are making conscious/strategic decisions to implement automation

But only a minority of CTOs agree.

30%
of CTO respondents believe their companies are making conscious/strategic decisions to implement automation

Divergent views of AI's adoption

In assessing the proportion of TV business processes that currently leverage AI, the answer depends largely on who you ask. CTOs tend to estimate a higher proportion of their companies' processes include the use of artificial intelligence, **while other job categories, including mid- to lower-level tech positions, generally place the proportion significantly lower.**
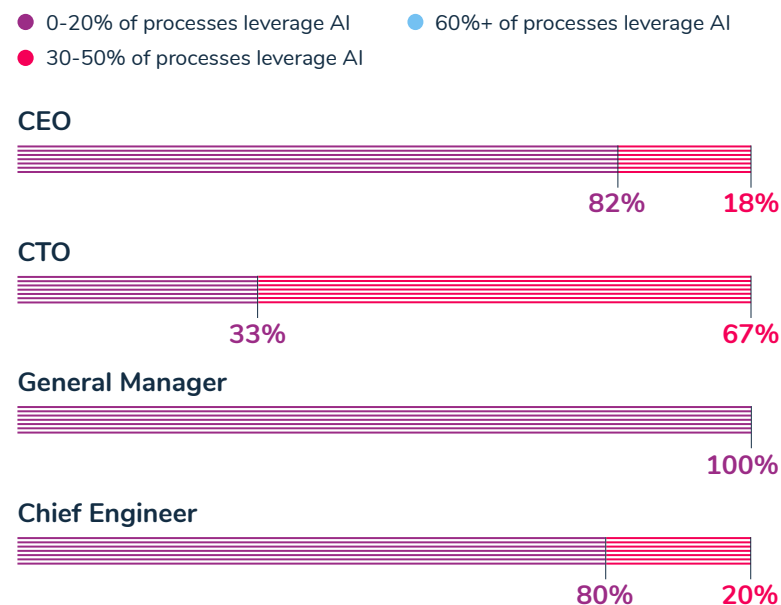
The cross-level disconnect may stem from CTOs' broad visibility into technology initiatives across business areas, while less senior employees may be more focused on their own workload. However, no respondent estimated that over 60% of their business processes leverage AI. Despite conflicting reports on AI's reach, it's clear that few TV organizations have fully embraced it across the board.

Decisions driven by differentiation

In responding to our survey, members of the C-suite were united in their motivations for implementing AI. CEOs (73%) and CTOs (67%) both cite its opportunity for competitive products/services, innovation and differentiation as a driving factor. An equal number of CTOs (67%) say the desire to monetize underutilized and/or never-used media assets is a top influencer.

An overwhelming majority of general managers (80%) agree that competitive differentiation is attractive, while 100% of chief engineers list the desire to save cost as a reason for implementing AI. Operational efficiency or enhanced job performance may appeal to lower-level employees, but from chief engineer through CEO, AI's revenue-generating and cost-cutting attributes win out as its most valuable benefits.

Proportion of business processes that currently leverage AI, by job category

- 0-20% of processes leverage AI
- 60%+ of processes leverage AI
- 30-50% of processes leverage AI

CEO
82% 18%

CTO
33% 67%

General Manager
100%

Chief Engineer
80% 20%

Over two-thirds of both CEOs and CTOs cite AI's opportunity for competitive products/services, innovation and differentiation as a main motivator for implementation.

Company Size Impacts Strategies and Success

Mid-sized companies are struggling

When it comes to AI, mid-sized TV companies (51–1,000 employees) are the least likely to make strategic or conscious efforts. Notably, they also had the highest proportion of respondents (20%) who were unsure whether their companies were making such efforts. Although the actual level of adoption may be higher, mid-sized organizations appear to be struggling to find their footing with artificial intelligence solutions. **It's possible that leaders of these organizations need to do a better job messaging their AI priorities, keeping employees in the loop about ongoing and upcoming artificial intelligence initiatives.**

Mid-sized companies are also the least likely group to perceive satisfying results from AI tools, with 20% of respondents in this category saying they're satisfied and 50% reporting mixed results. Whether it's lacking the technology budgets of larger companies or the necessary ingenuity of resource-limited smaller companies, some unidentifiable factor seems to be holding mid-sized companies back. **They may soon crack the AI code, but currently, mid-sized organizations are not benefitting from automation to the same — albeit limited — degree that small and large companies are, indicating an opportunity for more tailored AI solutions within the mid-market.**

For the purposes of analysis, we used the following definitions:
- Small companies: 1-50 employees (58 respondents)
- Medium companies: 51-1,000 employees (30 respondents)
- Large companies: >1,000 employees (28 respondents)

Organizations currently making strategic/ conscious efforts to implement AI, by size

- ● Yes, my company is doing this
- ● No, my company is not doing this
- ● I don't know if my company is doing this

Small

48%　43%　9%

Medium

40%　40%　20%

Large

79%　14%　7%
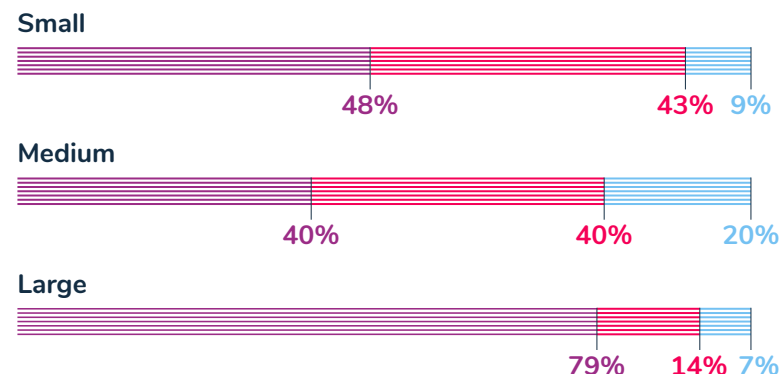
Satisfaction with results of AI initiatives, by company size

- ● Satisfied
- ● Mixed results depending on initiative
- ● Not satisfied
- ● Not sure yet

Small

35%　31%　35%

Medium

20%　50%　30%

Large

33%　38%　29%
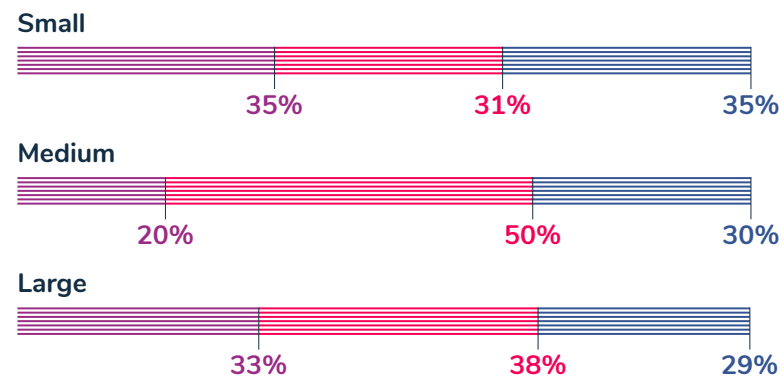
The larger the size, the more decentralized

Centralized approaches to AI integration remain the most common, but large companies are more likely to adopt a decentralized strategy. While the number still sits at just 33%, it may reflect circumstances within bigger companies that make a decentralized approach easier. Large size (and the resources and funds that come with it) may be a prerequisite for giving each department the autonomy to define its own AI strategy and implement it based on their needs.

However, these organizations must consider the risk of opting not to build the foundation for a long-term, holistic AI strategy. Will they eventually be surpassed by companies investing in a centralized infrastructure that enables them to share data and optimize operations companywide?

"These organizations must consider the risk of opting not to build the foundation for a long-term, holistic AI strategy."

Approach to AI implementation, by company size

● Centralized　● Decentralized　● Other

Small

69%　19%　12%

Medium

70%　20%　10%

Large

57%　33%　10%
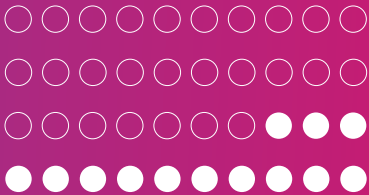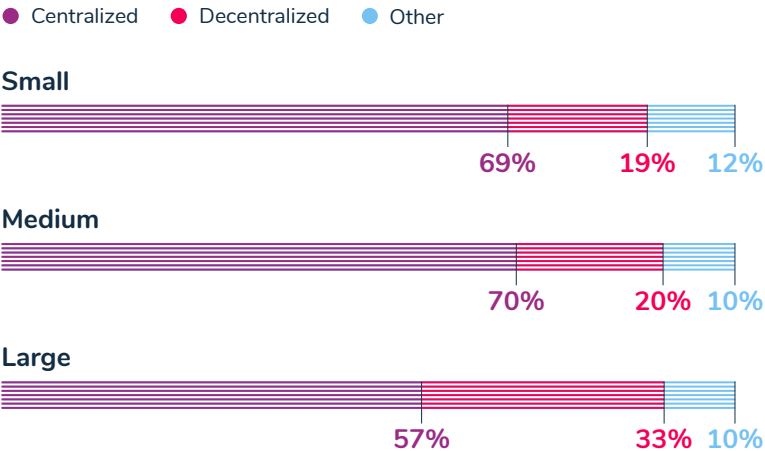
33%
of large companies have adopted a decentralized strategy.

Conclusion

TV's embrace of AI is slow — but promising

Television organizations today are far from automation-driven operations. But increasingly, they're turning to AI-enabled solutions to streamline processes, boost revenue and alleviate the burden on hard-working employees. The results of our survey show that this process isn't straightforward, and it's characterized by trial and error. As organizations of all sizes discover and embrace automation for metadata creation, content recommendations and beyond, **they can unlock smarter, more optimized operations — and allow a talented but often time-starved workforce to work more effectively.**

Prioritizing proven AI strategies and aligning internally on these efforts can set media organizations up for success and provide a path to the competitive advantages they're all seeking. Though the in-between period may involve some growing pains — and last longer than expected — those that embrace AI and implement it strategically stand to benefit long term, reaping the tangible rewards of automated processes.

Methodology

Study results are based on a survey of individuals representing over 100 TV industry organizations conducted by Future Media Entertainment Group on behalf of Veritone. Respondents include statistically significant subsets from TV stations/networks, production companies and broadcast consultants, among other M&E business types. Respondents were drawn from different functional areas including technology, engineering, operations, production and sales.

About Veritone

Veritone is a leading provider of artificial intelligence (AI) technology and solutions. The company's proprietary operating system, aiWARE™, powers a diverse set of AI applications and intelligent process automation solutions that are transforming both commercial and government organizations. aiWARE orchestrates an expanding ecosystem of machine learning models to transform audio, video and other data sources into actionable intelligence. The company's AI developer tools enable its customers and partners to easily develop and deploy custom applications that leverage the power of AI to dramatically improve operational efficiency and unlock untapped opportunities. Veritone is headquartered in Costa Mesa, California, and has offices in Denver, London, New York, San Diego and Seattle.

To learn more, visit Veritone.com.