The Future is Automated

The landscape ahead for M+E looks uncertain. Automation can ease the journey.

WORKFLOWS AND THE CLOUD
From cloud-based productions to unprecedented storage demands, the supply chain has never been more challenging
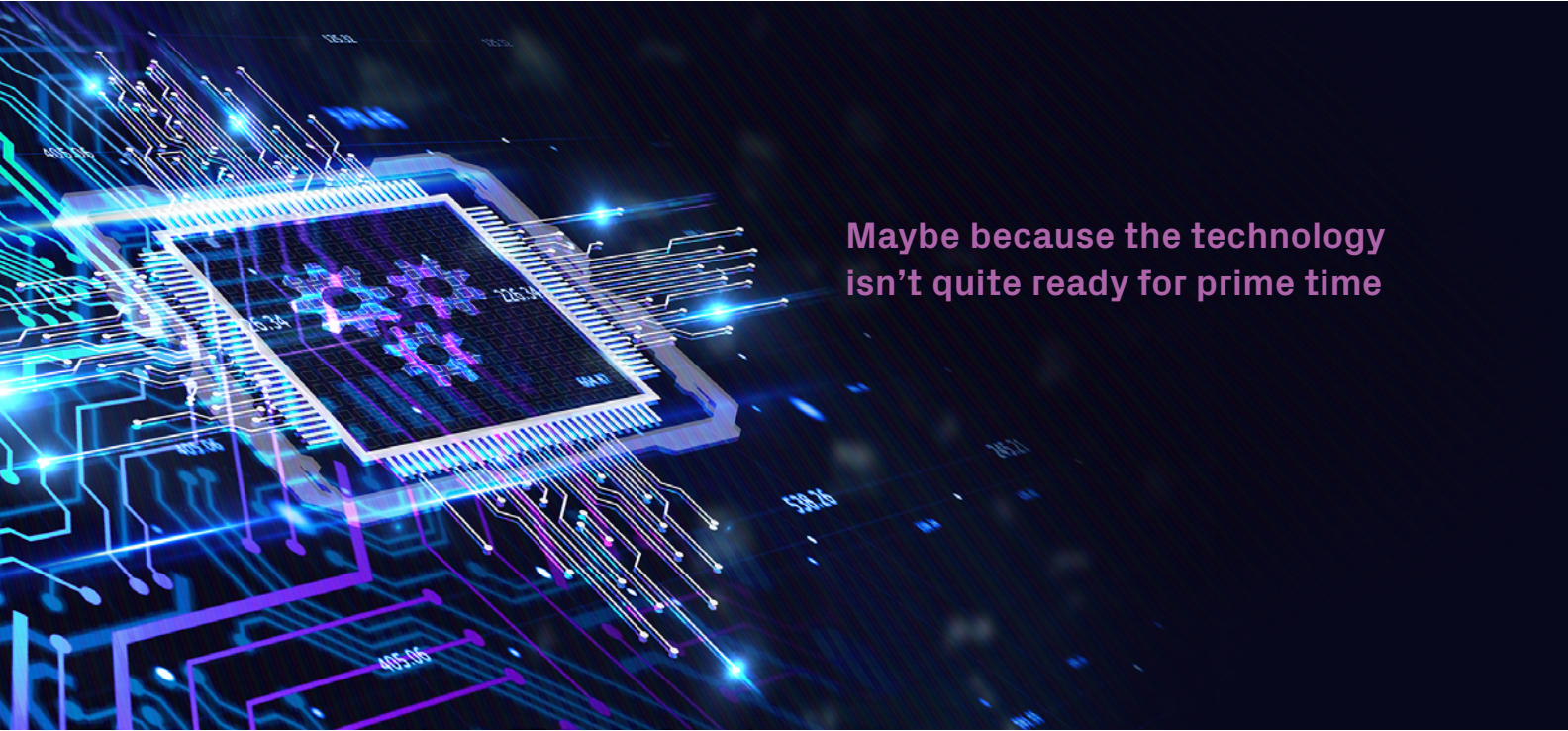
SMART CONTENT
The questions around AI, metadata, and analytics are endless. But we do have many of the answers already

SECURITY SOLUTIONS:
Cybersecurity and content protection in M&E is always on defense. Can automation can change that?

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AUTOMATION IS NOTHING NEW. SO WHY ISN'T EVERYONE USING IT?

Maybe because the technology isn't quite ready for prime time

ABSTRACT: While automation can bring efficiency gains to tasks and workflows such as digital asset management and postproduction, the industry's multi-faceted nature and the need for high-quality outputs make it challenging to implement. However, designing well-thought-out automation workflows and using task-specific tools can enhance efficiency and productivity.

By George Rausch, Chief Product Officer, Blu Digital Group

Automation debuted nearly 2,000 years ago, when the Chinese developed the water-wheel to automate such activities as grinding grains and raising water. Over the two millennia since, mechanization, computers and software, robotics, and now AI and ML have become part of humanity's toolbox to relieve itself from the toils of repetitive tasks.

As we look across the present media and entertainment landscape, cost-cutting and productivity improvements are on everyone's minds. In theory, automation can potentially transform the media and entertainment industry. But in practice, technological complexities and human factors impede an expeditious transition to utilizing more automation.

Automation can be broken down into two categories: tasks and workflows. A task is a single process (e.g., detecting moments of black and silence in the video), and a workflow is a string of many tasks (e.g., detecting moments of black and silence in the video AND validating those values against video platforms ad break specs AND then delivering the output to a rights management system). Today, some amazing AI/ML tools are having a major impact on digital asset management (DAM) and postproduction:

> *MOVING BEYOND single-function automation tasks, real efficiency gains exist in workflow automation.*

■ *DAM:* With the help of automation, DAM systems can quickly and accurately tag, categorize, and organize assets, making them easier to find and use in future projects.

■ *Postproduction:* Automated editing tools and software speed up the post-production process. For example, AI-powered video editing software can analyze footage and automatically suggest cuts and transitions, reducing the time and effort required for manual editing.

However, as we head deeper into automating away the most laborious human tasks (i.e., time-consuming, tedious) in the M&E industry, the technology isn't quite ready for prime time. To name three items: high-quality AI-generated translations (as well as complex transcriptions with multiple speakers), compliance video editorial, and performing qualitative video QC.

While many AI/ML tools exist to do translations, transcriptions, and find compliance issues, they're only "good enough" and not the same as if a human were to do it. In many cases, a human must do a conform pass as no one would dare use the output "as is" because it could sacrifice the consumer experience. For qualitative video QC, there are many high-quality tools out there that can detect issues and print a report. Still, they can't form an opinion and tell you if something is truly an issue or a non-issue like a human QC operator can. With time, these items will improve to the point wherein they can "form an opinion" that is trustworthy–or at least closer to the desired outcome.

Moving beyond single-function automation tasks, real efficiency gains exist in workflow automation. A well-designed workflow seamlessly orchestrates all the tasks to form a desired output, increases productivity, and lowers costs. In many other industries, automation workflows have been used to great effect. "Why can't the M&E industry get its act together!" exclaims every executive in charge of reigning in costs. The main issue is that media is multi-faceted (e.g., audio, video, artwork, text, and so on it, with seemingly infinite format variations); media is "made for humans," meaning the outputs are either right or "not quite right" with minimal room for error (e.g., a bad translation, badly placed ad break, poorly mixed audio,

continuity issues, etc.). And creating media can be done in a million different ways (i.e., there is no "one way" or "right way" to do it).

Conversely, automation likes uniform processes and clean, organized data that can be analyzed and provide results which is the opposite of how the M&E industry works. As a result, designing a media automation workflow can feel like an exercise in insanity. Let's contemplate the process of creating a movie from post-production through delivery to a theater or video platform. Individuals often perform many tasks in tandem (i.e., stop to start the next task), which delays others from starting their work. To design efficient automation, one needs to start thinking about breaking down larger items into smaller parts to be worked on in parallel and potentially out of sequence.

At Blu Digital Group, we have designed solutions that empower and enhance M&E workflows so that many users can work on complex projects agilely. The missing link between today's veritable toolbox of automation applications is the project management and seamless integration between those tools to increase efficiency. Our cloud-based BluConductor application acts as the project management hub for all other tools (or modules) that one would want to integrate. For example, title/rights management system, cloud storage, transcoders, automated QC, and almost anything with an API. Secondarily, we created task-specific tools within BluConductor to bring common workflows to the cloud, such as finding ad breaks for AVOD/FAST using our BluSpot tool, BluTranscode for media conformance, normalization, and transcoding, and BluQC, the world's first fully cloud-based, interactive QC tool which allows users to perform QC remotely and securely and then share reports with real-time component switching during playback.

While the creation of AI/ML tools do the fancy, futuristic automation of human tasks are still on the horizon, a well-designed automation workflow in conjunction with task-specific automation is possible today. It requires thinking differently about current processes, questioning everything, giving up tasks that machines can do infinitely better than humans, and letting humans do the things they excel at while making them more productive. ⊞

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