AI: A cure for Baumol's disease?

Doyle, Gillian, Baumann, Sabine

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Highlights (3-5 min)	Expert	Adela	August 03, 2026

> Focus: Focus on the AI survey findings: how generative AI is used in media production, why it augments rather than replaces creative labour, and what this means for cost disease in practice.

A string quartet in nineteen sixty-five needed four musicians and twenty minutes to perform a Beethoven piece. A string quartet today still needs four musicians and twenty minutes. That is Baumol's cost disease in its original form, and Baumol and Bowen explained it in nineteen sixty-six. Because wages rise across the whole economy while productivity in the arts cannot keep pace, cultural production faces what Blaug later summarized as "irremediable cost inflation." Film and television sit squarely in this trap. As Doyle and Towse have both emphasized, media production relies on skilled, non-routine creative labor for which there is no capital substitute. You cannot mechanize a screenwriter the way you can mechanize a stamping press.

That is the structural problem. Now here is what changes when you introduce generative artificial intelligence into the pipeline.

Doyle and Baumann map specific tools to specific stages of production. In pre-production, transformer-based large language models, or LLMs, are used for script drafting, script analysis, and box-office forecasting. On set, artificial intelligence drives motion-capture synthetic humans, camera and lighting control, and real-time de-aging. The film "Here" digitally de-aged Tom Hanks and Robin Wright during live performance. In post-production, rotoscoping and visual effects work are automated — "Everything Everywhere All at Once" is cited — and editing time drops from days to a few hours. Voice cloning tools like Speechify can replicate a voice from minimal training data. For distribution, artificial intelligence handles audience analytics and predictive release strategies. The International Monetary Fund estimates that artificial intelligence will affect forty percent of jobs worldwide. In media, the footprint is already visible at every stage.

So what does all this actually do to the workforce? The evidence Doyle and Baumann survey points consistently to augmentation rather than replacement. Artifi-

cial intelligence takes over repetitive, routine tasks — basic copywriting, formatting, automated financial news, and some fact-checking — while core creative and editorial judgment remains human. The roles most exposed are extras, background staff, and basic editors. The roles growing are creative directors, visual effects technicians, show producers, data journalists, and artificial intelligence programmers. Industry surveys show that workers and organizations view artificial intelligence more as an opportunity than a threat, and are investing in new skills accordingly. Crucially, ethical and practical constraints shape deployment: copyright disputes, bias amplification, privacy concerns, and the controversy over using journalistic content to train large language models — Axel Springer's twenty twenty-three licensing deals are cited as a direct response — keep humans embedded in the loop in ways that are not merely cultural but contractual.

Which brings us back to Baumol. Doyle and Baumann conclude that artificial intelligence delivers real productivity gains; it frees creative workers for higher-value work and compresses production timelines. But it does not cure the disease. First-copy creative labor remains stubbornly dependent on humans, so high original production costs persist even as marginal distribution costs fall. Policy constraints around misinformation, transparency, and intellectual property further limit how far efficiency gains can run. What artificial intelligence offers is partial, bounded relief — not a cure, but the first serious challenge to a theory that has held for sixty years.

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