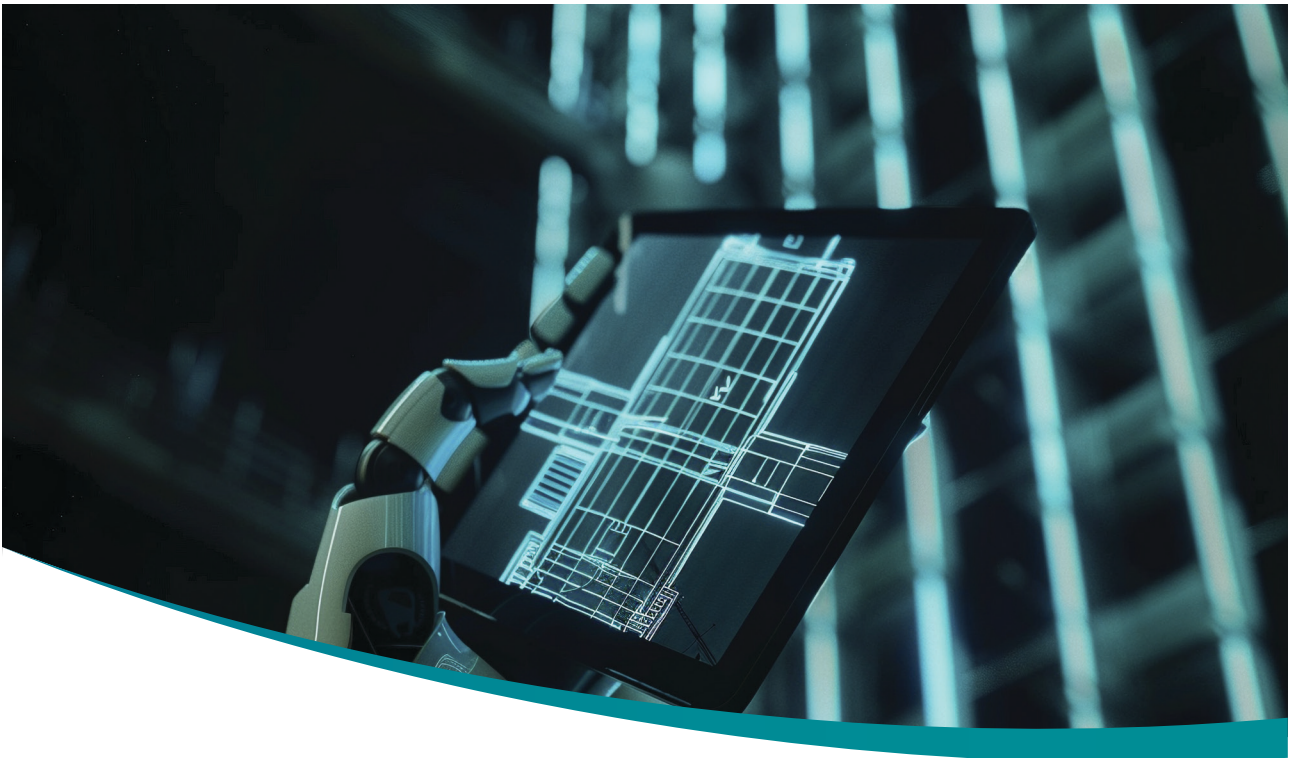


# Digital Tools and AI in Construction: A Cost Management Perspective on Expectation vs Reality

~ Harry Ross - Dreher





## **Digital and AI tools promise a lot, yet on many live projects real change remains limited.**

AI and digital tools are now part of everyday industry discussion. Conferences, articles and pilot initiatives promise faster delivery, greater certainty and reduced risk. Yet on many projects, the day-to-day reality remains largely unchanged. Information remains fragmented, design develops late, teams still rely heavily on manual processes, and pressure on fees and programme remain. In markets such as the Middle East, where megaproject pipelines and infrastructure programmes demand greater certainty under compressed timelines, this gap is especially visible.

There is a growing gap between what is being discussed and what is being delivered at scale. Adoption data reflects this. RICS research covering more than 2,000 built environment professionals suggests that around 45% report no use of AI at all, while a further 30–35% remain limited to early pilots. Fewer than 2% reported AI being embedded across multiple business processes, reinforcing how early adoption still is across much of the industry.

The barriers are largely practical rather than philosophical. The most commonly cited constraints include lack of skills, difficulty integrating with existing systems, and poor or inconsistent data.

For cost management, this matters. Expectations are increasing, greater certainty is required earlier, often when information is incomplete and changing, placing greater emphasis on where professional time genuinely adds value.

# The problems teams are still dealing with

Despite years of digital investment, many long standing challenges remain:

- Fragmented information across drawings, models, specifications, emails and spreadsheets
- Late design development driving rework, scope creep and commercial uncertainty
- Manual, time intensive processes in measurement, reconciliation and reporting
- Growing expectations for certainty delivered earlier with incomplete information

These pressures are not theoretical. They directly affect programme, cost certainty, commercial relationships and professional credibility.

Digital tools are often presented as the solution. In practice, technology alone does not fix broken ways of working.

## Why progress often stalls

Many digital initiatives struggle to move beyond experimentation. When tools are introduced into inconsistent processes, teams can spend more time validating outputs than completing the task manually. This result is frustration rather than efficiency. Trust erodes quickly when outputs cannot be explained, reconciled or defended commercially.

This helps explain why attempts to digitise everything at once, or to adopt technology without first clarifying information structure and ownership, often add complexity rather than reducing it.

## Where **digital tools** are actually helping

When applied deliberately, digital and AI-enabled tools are already delivering measurable benefits.

Across the industry, value is emerging in areas such as:

- Assisted measurement that accelerates quantity extraction while retaining professional oversight
- Cost benchmarking that supports option appraisal and early stage sense checks
- Automated reconciliation that reduces manual comparison
- Earlier visibility of cost and scope drivers

The real value of digital tools is not simply speed. It is reducing low value, repetitive tasks so more time can be focused on commercial judgement, risk, option evaluation and better decision making.

Used well, automation reduces low judgement effort and allows greater focus on interrogating design decisions, managing risk exposure and improving early-stage cost certainty. For clients, this translates into clearer advice earlier, fewer late surprises, and more informed decisions when it matters most.

## Why the basics still matter

One of the clearest lessons from recent years is that AI is only as useful as the information it relies on.

For digital tools to work at scale, projects still require consistent naming and classification, structured and machine-readable data, clear version control and ownership, and ways of working that reflect how teams actually operate. These fundamentals are often overlooked, but without them even sophisticated platforms struggle to deliver repeatable, defensible outcomes.

## Skills, development and responsibility

There is also an important skills dimension.

Many tasks now being automated, such as manual measurement and data reconciliation, have traditionally supported early career development within the profession. The answer is not to preserve inefficiency for its own sake, but to ensure the time released by automation is reinvested effectively.

Digital tools should accelerate learning, not remove it. They can enable earlier exposure to design thinking, risk assessment, option evaluation and client facing work. Used poorly, they risk eroding future capability by narrowing learning pathways.

Automation should remove friction, not opportunity.

## Applying this in practice

At AESG, digital and AI-enabled tools have been tested and applied within live project environments, with focus placed on practical use rather than technology for its own sake.

Rather than deploying tools simply because they are new, they are assessed against clear criteria focused on accuracy, transparency of outputs, compatibility with existing QA processes, and the ability to reduce rework or improve informed decision making. In practice, this has meant prioritising digital capabilities that support repeatable, high effort activities such as measurement efficiency and benchmarking, while keeping professional judgement and accountability central.

The objective is to reduce avoidable rework, improve early visibility of cost and risk, and protect time for the advisory work that clients are actually paying for.

## What comes next

Construction has the potential to move toward more predictive, less reactive delivery. Improved forecasting, connected digital environments and greater automation of repetitive tasks can support better decision making.

This transition can feel unsettling, not because the technology is unproven, but because it forces the industry to confront how value is created, how professionals are developed and how judgement is exercised.

Digital tools do not diminish the role of the quantity surveyor. They strengthen it.

The real measure of success will not be how many tasks we automate, but how effectively we use that progress to deliver better outcomes, develop stronger professionals and reduce avoidable risk and rework across projects.

# How AESG can help



## ***Harry Ross - Dreher***

Principal Cost Manager  
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Chartered Quantity Surveyor (MRICS) with over 4 years of post degree experience delivering astute cost control and commercial value on high-end construction projects across London and the UAE.

A driven and analytical professional with a strong track record in both pre and post-contract services. Adept at managing complex, client facing projects with a focus on accuracy, value and timely delivery.

Harry brings a versatile and collaborative approach, taking lead roles across multiple projects and managing responsibilities from initial budgeting through to final account agreement. Known for strong interpersonal skills, commercial acumen, and a commitment to delivering cost effective, high quality outcomes aligned with client objectives.

***For further information relating to specialist consultancy engineering services, feel free to contact us directly via [info@aesg.com](mailto:info@aesg.com)***

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