

Future Facing Disputes

The Impact of Technology in Construction

Technology and data in construction has become an increasingly important topic as the amount of technology being used on construction sites increases – from drones, to wearable tech such as smart glasses and hard hats, GPS records, video recordings from vehicles, scanning and bar coding of resources and the like. This is leading in some cases to vast amounts of data being generated on site, which gives both an opportunity to have more and better records during a project, with potential to assist in project management, and also an increased burden in interpreting and managing that data.

Key issues arising are data management and data protection; the need to have a data strategy; how parties in a dispute can make best use of data arising from technology; and what this means for future skills required in the construction industry.



The Need for Records

The need for records to prove claims is well known. It has long been a consistent theme from decision makers, experts and counter-parties in disputes.

The Society of Construction Law Delay & Disruption Protocol, 2nd edn, February 2017¹ includes “Programme and Records” as one of its Core Principles:

“Contracting parties should reach a clear agreement on the type of records to be kept and allocate the necessary resources to meet that agreement. Further, to assist in managing progress of the works and to reduce the number of disputes relating to delay and disruption, the Contractor should prepare and the CA should accept a properly prepared programme showing the manner and sequence in which the Contractor plans to carry out the works. The programme should be updated to record actual progress, variations, changes of logic, methods and sequences, mitigations or accelerations measures and any EOTs granted. If this is done, then the programme can be more easily used as a tool for managing change and determining EOTs and periods of time for which compensation may be due”.

¹ https://www.scl.org.uk/sites/default/files/documents/SCL_Delay_Protocol_2nd_Edition_Final.pdf



The Construction Leadership Council (CLC) published Record Keeping Guidance in July 2020²:

“Not only can good records make or break a claim or defence before a tribunal, they can also help the parties resolve claims more efficiently between themselves and, if shared contemporaneously, they can help to mitigate the delay and/or additional costs. ... Compiling records in order to corroborate and substantiate your position can be the difference between optimising your position or losing out in the context of either a deal or a dispute”.

The key themes from these illustrate the importance of records for:

- **Dispute avoidance** – using them as a project management tool, effectively creating an early warning system if time starts to slip or costs start to rise and allowing mitigation measures to be put in place to address this.
- **Dispute management** – using records to enabling those handling the dispute to gain an understanding of the facts and to use these to demonstrate entitlement in a succinct and understandable way to tell a coherent story as work progresses, allowing claims to be addressed in real time and before they escalate and damage relationships.
- **Dispute resolution** – in the context of a formal dispute resolution process, using records to prove a claim. In addition to claims for extension of time and financial entitlement, records can also be important in the context of claims related to latent defects which could arise some years after completion. Ultimately parties are aiming to provide accessible, manageable and practical records, which on the balance of probabilities, evidences their position.



The Impact of Technology

One of the main factors related to the use of technology is the impact on the volume and type of records which can be created. That presents both an opportunity and a challenge – an opportunity to collect comprehensive records covering all aspects of the project in granular detail and a challenge in that the sheer volume of records can lead to data overload making it difficult to analyse and present the relevant information.

In the context of that potential for data overload, the question then becomes what data to collect, how to collect it and how to use it most effectively. This points to the need for businesses to put in place a data strategy as early as possible and to keep this updated. Key aspects of that would include:

- **Who is to be responsible for recording information?** How will they be made aware of what they are expected to record, why they are doing it and how the records are to be kept? Consider how this is to be managed where many trades are delivered through subcontractors and how their records are to be created, reported and shared.
- **What is to be recorded?** Not every piece of data which could be recorded will be necessary or useful – quality of data may be better than quantity. Consider what information will be useful for the 3 elements above – project management and productivity, real-time dispute management and formal dispute resolution – and collect and retain only what is genuinely needed for these identified purposes. Invest in making sure the system is designed accordingly.
- **When to record?** Different types of data will be required at different time intervals.
- **How to record?** What device and software is to be used? How user-friendly is it? How can it be made accessible, convenient and easy to use for those responsible for keeping records? Looking forward, use consistent terminology or naming protocols which will make it much simpler to analyse data when required and set up a clear filing system so that records can easily be identified and accessed when required.
- **How to store and for how long?** The method of storage needs to be considered so that data and the formats it is stored in remain accessible in the future as does the length of time the data is to be stored. Some types of data will be required over the long term whilst others may quickly become redundant. Some should therefore be deleted whilst it will be important to retain others. From a regulatory perspective, personal data should only be kept for as long as it is needed for the purposes it was collected. The cost and method of storage will also need to be considered.

- **Is there to be an agreed set of records?** Collating one agreed set of project records, available to all parties, means that disputes about facts can be reduced or eliminated allowing a focus on mitigating and resolving issues or, in the absence of resolution, applying that agreed set of facts to the contractual rights and remedies in the context of a dispute resolution procedure. This narrowing of the factual issues could lead to both time and cost savings in any proceedings.



The Impact on the Workforce

In common with many other aspects of life, there is clearly an increased need for those in the construction industry to be digitally proficient.

The workforce will also necessarily include people with knowledge and an understanding of both the industry and how to procure IT and other technological systems as well as those with an understanding of the regulatory framework and constraints. Without these skills, it is difficult for businesses to go to market and procure the right systems.

People are also required to analyse the data in a meaningful way. Data scientists who have expertise in handling volumes of information but also with industry expertise will be in demand to help businesses reap the benefits of having the information available.

We have already seen new roles related to the use of technology on all aspects of projects – from inception to completion and into the operational phase, but there is a need for wider training across the board.

The Scottish Parliament’s Economy, Energy and Fair Work Committee report “Under Construction: Building the future of the sector in Scotland”³ found a mismatch between construction leaders’ and many Tier 1 contractor’s ambitions to use digital technology and the general development of digital skills among the majority of the sector. It was considered to be vital that businesses at all levels of the supply chain are able and willing to use technology if productivity is to improve.

The 2016 Farmer Review of the UK Construction Labour Model “Modernise or Die”⁴ put it more strongly concluding: “*The current pace and nature of technological change and innovation in wider society is such that unless the industry embraces this trend at scale, it will miss the greatest single opportunity to improve productivity and offset workforce shrinkage. Failing to embrace change will also further marginalise the industry by reducing its attractiveness to a new generation of workers who will have grown up in a digital world*”.



Legal Considerations

A number of legal considerations arise from the collection of data:

- **Consider who is the data controller and who is the data processor** For example, subcontractors may collect personal data as part of their management of their workforce (and will therefore be the data controller of that data) but the main contractor may need access to the data for other purposes such as monitoring progress or pursuing claims. Contracts and subcontracts will need to document responsibilities related to collection and rights related to access to and use of personal data.
- **Cyber security** Consider other risks such as potential liabilities for cyber security / loss or corruption of data – who will bear the risk and what is that party’s financial position? This is a fast-moving area with many new players entering the market.
- **Privacy by design** It will be necessary to demonstrate that there is sufficient justification for collecting data to avoid regulatory problems arising under data protection laws. In a dispute context a failure to ensure that personal data is collected in accordance with data protection laws can cause unexpected delays to data reaching your lawyers and experts for analysis. It is also important to consider how the technical solutions may monitor how and when work is being performed by individual people, as this may result in excessive collection of personal data relating to these individuals. Building “privacy by design” into the planning process can help mitigate this. Consider how to justify the data collection and retention and whether the impact on those whose data is being collected can be mitigated.

3 <https://sp-bpr-en-prod-cdneq.azureedge.net/published/EEFW/2019/7/2/Under-Construction--Building-the-future-of-the-sector-in-Scotland/EJFWS052019R08.pdf>

4 <https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2016/10/Farmer-Review.pdf>

- **Data ownership / sharing / access** These requirements give rise to numerous intellectual property issues. Consider what your needs are, or are likely to be, up front and work these into contracts with technology suppliers, as well as other parties on the project where appropriate.

There is a need to understand and develop the technologies and their sources and think about procurement from an early stage, putting in place agreements which deal with the logistical and legal issues.

Failing to address this and to ensure data is being collected in accordance with data protection laws could result in data not being able to be used or having to be deleted.



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