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Game of cranes?

MARK WHEELER – HEAD OF DIALES EXPLAINS AND EXPLORES THE POTENTIAL APPLICATION OF ‘GAMIFICATION’ TO THE CONSTRUCTION INDUSTRY.

‘Gamification’, is the name of the game. Apparently. It sounds like a made up word to me, but then all words were made up at some point. Put simply, gamification involves turning a situation into a game, in which the team, class, or other group of people view the tasks they are involved in a different context. The term ‘Gamification’ was first coined in 2002, but this is certainly not a new concept, and its origins can be traced back to the 1970s.

This involves using game thinking and game mechanics in a context outside of a game. A number of leading businesses are now using these techniques to train staff and improve performance, including Microsoft, SAP, Unilever, IBM, and the US military. These organisations

have become convinced that training and productivity can be significantly enhanced by using a game based approach. There are a growing number of apps that employ the techniques, to engage individuals in both learning and improved performance. Interest in these techniques is growing rapidly, the 2012 Gamification World Congress was attended by 150 people, and the event in 2015 welcomed over 1,500.

Using game methodology in a business environment is not without risk, and the consequences of turning targets, for example, into simple reward based structures may have unintended consequences. E.g. motivating a group of people on one particular metric alone, sales perhaps, may mean that they become fiercely competitive

with each other, rather than just in the marketplace. The best results are likely to flow from team based game mechanics, where the complex interaction of a number of key performance indicators interact to produce the right overall result and one which matches the corporate strategy. Theme based games, such as Monopoly probably have more business synergy than simple abstract task games that are targeted at specific areas of learning or performance.

Can this gamification work in the construction industry? It seems that projects may be ideally suited to these techniques. Most projects are a one-off exercise in which a large number of people need to learn to work together. They will come from a wide range of

separate organisations with complex and often competing commercial targets. They will come from a wide range of backgrounds and specialities. They will need to work together, as a team, to deliver the common goal of a successful project delivered to a good standard, on time, and to budget.

It does not take much imagination to join up these issues with the flow of information that exists in the project controls philosophy, applied to most major projects. The impact of their efforts is already measured by complex programming software, in BIM data and project records. There are a wide number of measurable parameters in a project controls reporting matrix that measure, and forecast, the various key indicators for the project. What is currently missing, is linking the day to day actions of individuals to show the impact of their actions on the project outcomes. This might be quite dull, unless game mechanics and techniques are used to keep everyone engaged throughout the project. A number of software and app developers already apply these techniques to a widening sphere of industries. Perhaps the time has come to invent ‘Game of Cranes’.

Everybody on the project engages in various tasks that contribute to the overall output, but with their own targets and roles focused on their skill sets; with personal and team rewards based on aiding others to deliver in their roles. External factors, such as weather, can never be controlled and there will be no prizes for gloomily predicting that “...winter is coming...”.

The way in which such problems are mitigated would have a major impact on project outcome and should also be measurable. Perhaps gamification techniques have a role in construction, perhaps the wider project team can all win together? ■