ResoLex

Early warning through stakeholder communications

The RADAR horizon scanning system

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ResoLex

ResoLex is an independent consultancy
specialising in collaborative working, risk
monitoring and stakeholder engagement.

We work with project teams across a number of
industries, using a combination of behavioural
theory, technology and industry experience to
co-create new solutions to old problems.

Introduction

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How good is your industry at managing behavioural risk on large projects? According to the statistics, whatever sector you are in, the chances are that it is not very good. Despite the considerable resources that organisations put into risk assessments, too many projects fail to achieve a successful outcome for reasons that were not anticipated, and yet in hindsight should have been predictable. As projects become larger and more complex, the challenge of getting your risk strategy right becomes critically important. So how do you improve your risk assessment system? Part of the answer lies in adapting your project systems to collect better Early Warning Signals.[1]

Early Warning Signals (EWS) have been recognised as a potentially valuable part of the risk manager's toolkit for many years, and there have been a number of scientific studies undertaken to understand how they work. This paper looks at the phenomena of EWS's and why they are so important, not only to good project governance, but also to successful project outcomes.

Analyses of unsuccessful projects frequently show that the signs of impending disaster were available well in advance of the final failure. The hard facts that confirm a warning tend to arrive just before the crisis hits. There is, therefore, a very strong case for making better use of the data that early warning signals can provide. So how do early warning signals fit within the traditional approach to project risk management? The answer is, not as easily as they should.

1 Note – for readers working in the construction industry, it is important to make a distinction between EWS and The 'Early Warnings' requirements set out in the NEC3 form of contract

Look outside of the technical bubble

Project teams often create a project 'bubble', within which they become almost solely focused on the technical challenges of design, programming, and delivery. The project risk register is created by asking the individual experts within the bubble to articulate the issues causing them concern. Consequently, the risk register typically comprises a schedule of issues relating to decision making or other "known unknowns".

Disruption, however, often comes from issues that appear from outside the technical bubble in the form of human interaction, (or the lack thereof). It is interesting to note how often a project post-mortem points to the sources of distress that have been created by behavioural factors rather than by technical failure.

This near sighted approach to risk is compounded by a mindset that hangs onto the belief that projects can be planned in detail, and then controlled by the allocation of resources. This 'predict and control' mindset works adequately on projects that fit within a sequential programme where the patterns of activity are familiar. The approach becomes unstable as projects move from complicated to complex. In a complex environment, there are too many potential variables to predict a precise outcome; a change in one aspect of the environment may induce multiple potential side effects elsewhere on the programme.

We live in unpredictable times. The political, economic, and social factors which shape any major project are in a continual state of flux. Unpredictable environments require a new managerial skill set based around a philosophy of 'sense and react'. This requires a different attitude to risk, where a project team learns to scan the horizon, looking for signals indicating potential trouble ahead. Technical teams should be encouraged to learn to trust their own gut feel, as well as listening more closely to the partially articulated warnings that come from others. This is particularly true for the men and women who are working at the project 'coalface'. They are the people who are most absorbed in trying to deliver what others have planned, and are consequently aware of any tensions that are starting to arise.

Cultural barriers

Based on the above observations, it should be a simple matter of good project governance to establish a process or system to collect early warning signals. Logic however is not enough. The studies that have been done around early warning signals reveal that picking up the signals is only part of the task. Recognizing the available data and then taking action on the information it provides is often a greater challenge to the project team. If the signs of impending disaster are frequently available to us, why do so many teams choose to ignore them? As is so often the case, it is partly down to poor systems, but more often is the result of human fallibility.

Humans are generally not very good at picking up early warning signals. In a review of the literature on the subject Terry Williams and his colleagues pointed to three key reasons why project leaders struggle to see the early signs:

i   A limited understanding on the full scope of project risk.

ii   A low recognition of the implications of project complexity.

iii A lack of the importance given to tacit or unwritten information shared between people, and how they react and respond to such communication.

The underlying message is that as projects become more complex, project managers and team leaders need to recognize that risk extends beyond the technical risk register. The last point around tacit information is particularly important.

Each of these three areas merit more discussion, but for the purposes of this paper we will focus on the third point concerning interactions between people. Attention needs to be paid to the human-oriented social aspects of activity, happening within and around the project 'bubble'. Many of the barriers to the effective use of early warning signals identified by Williams et al, can be seen to be cultural rather than organisational blockages. I have picked out a number of examples in the table below.

Limiting Factor	Behavioural blockage
Organisational politics	The degree to which only certain information is deemed to be relevant. A preference for hard data over soft indicators.
Optimism bias	The tendency to believe that the problem will probably resolve itself therefore no action needs to be taken.
Discomfort	Low desire to deal with interpersonal issues before they break into open conflict.
Shooting the messenger	Reluctance by junior staff to be the bearer of bad news.
Lack of faith in the response	A pervading belief within the wider team that no action will be taken and so identifying an issue is simply a waste of effort.
No external input	Rejection of observations from outside of the team/organisation on the grounds that they do not have the full picture.

Table 1

Examples of behavioural blockages to the use of early warning signals

These points illustrate a major challenge to the project leadership team and should ideally be discussed early in the project lifecycle. Does your team believe that a process for identifying and collecting early warning signals would be valuable? If so, can you recognize the cultural and mental filters that will limit your ability to receive information and then act on it? Most rational leaders would say yes, confident in the belief that they would not be so blind to such potentially valuable data. It is important to recognize however, that the cultural and systemic forces that limit our thinking are strong and are often subconscious. Breaking through these limitations requires a degree of effort. This can be illustrated by our reactions to signals coming from 'gut feel'.

Learning to value 'gut feel'

Human beings are wired to seek out danger. In the modern workplace, we are rarely concerned about physical safety. Our mental and physiological systems nevertheless remain programmed to watch and listen for signs of any threat to ourselves, or our tribe. We often first pick up the sense of such threats in our stomach. Put simplistically, if we feel under threat, a part of the brain releases chemicals which can often be felt as contractions in our gut. Hence the phrase! Gut feel can be stimulated by little more than watching the reactions or body language of another team member. You might notice a small reaction to a peripheral issue that feels too remote to be a real problem and yet is still bothering you. It can often be difficult to articulate these feelings. How do you write down a rational explanation based on a tightening in your stomach? And yet the studies are clear that our gut instincts are often an accurate predictor of trouble ahead.

Of course, everyone has days when they feel a bit pessimistic, and having a bad day is not necessarily an early warning signal. The value of having a large number of people involved in a major project is the ability to tap into the 'wisdom of crowds'. The trick is to design a process to pick up data that is quick to collect, easy to analyse, and that the contributors believe will be valuable. In the following section we set out some ideas for creating your own project specific early warning signals process. As pointed out above however, the investment in building a system to collect this valuable data will be wasted if your team's mental filters reject the information before it has

a chance to be considered. If, on the other hand, you have the foresight and perception to work through these cultural constraints, you will give yourself a much greater chance of managing your project through the maze of the complexity and uncertainty.

Everyone processes information differently. Perspectives on any issues will be determined by the individual's own window on the world. When a situation arises on a project, each person acts on the information that they receive and responds in their own unique way based on their preconceptions, perceptions, and emotions. Their resulting behaviours can be beneficial or detrimental to the progress of the project but are rarely considered as risks in themselves. Our belief is that they are a risk and therefore can, and should, be monitored and managed.

Case study

A good example of a project benefiting from this approach is the construction of the Enterprise Centre at the University of East Anglia (UEA). Funded by the European Bank for Regional Development, the project provided a hub for teaching and local business and was constructed using innovative processes and materials to deliver an exemplar low carbon building.

Having decided to use collaborative working as the model for delivery, the UEA also embraced the principle of a neutral monitoring role on their project. The first step was to establish what exactly they could monitor. A workshop was held with the project stakeholders which allowed them to explore "what success would look like" for all different parts of the delivery team. Once this was established and agreed by all the different composite parts of the team, it was possible to build a delivery plan that would allow each project team member to achieve their personal and corporate goals whilst contributing to overall project success.

Once established, this Modus Operandi for the project was turned into a project charter for the team to physically sign up to. This set the blueprint for establishing what behaviours would be needed for the charter to really work and therefore what needed to be monitored on the project.

The areas identified were:

* Whether the perceived outcome of the project (at the time of asking) would achieve or exceed stakeholder expectations for the project.

* Was the project progressing in a way that would deliver the project aspirations?

* Was communication conducted in an open and honest manner?

* Were individual contributions communicated to and listened to by the senior management team?

* Were the innovative elements of the project (processes and materials) capable of being commercially replicated on other projects?

* What was the level of collaboration between team members?

* Was the delivery team proactively identifying and mitigating risks?

The project team agreed that if all of these were being answered positively then the project would deliver successfully across the board.

The ResoLex RADAR system was used as the communication portal to deliver monthly feedback to both the team leadership and the extended stakeholder base. One of the benefits of using the RADAR system was that

we were able to complete the communication loop and by asking a series of questions on the areas mentioned above, as well as some of the technical risks from the project risk register, provide the team with a comprehensive view of the risks over a monthly period.

The results of the monthly project evaluation exercises were analysed by a panel of industry experts and reported back to the project leadership team. The senior management team also had a monthly report which identified how all the project participants perceived the project was delivering against the desired objectives and behaviours, as set out in the charter, and what, if any, risks they were concerned about.

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Our project is a cutting edge exemplar project in both form and approach and in keeping with this we embraced an innovative approach to communication. We find that the RADAR report provided us with real insight into our scheme, just as we hoped. We felt that we might miss this information through only using traditional methods. The reports have added value by enabling us to tackle issues early, reducing conflict and ultimately helping save time and money.

JOHN FRENCH
PROJECT DIRECTOR, THE ENTERPRISE CENTRE AT
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As identified by the project director, the outcome of the project was improved, and the RADAR process gave the project the communication loop needed to generate engagement with the project stakeholders. The additional feedback gave clarity to the risk management process and confidence that not only were traditional technical risks being identified and mitigated, but that the project had a handle on the human dynamics of the project and the risks associated with them.

The premise of the monitoring and management mentioned in the case study above is that the information and knowledge that the project needs to achieve for successful project delivery is contained within the delivery team, but the challenge is gaining access to it, understanding it in the context of the project and ensuring that the ever-limited resources are deployed on the right issue at the right time.

The two key areas to identify are:

1   Specific risks which are either new to the project or the delivery team feel are not currently being managed or mitigated effectively;

2   The divergence of perceptions between the delivery teams about a known risk or the general project progress.

Horizon scanning for new risks or ineffective management or mitigation enables this information to be communicated across the project delivery team so that all parties are aware of the risks and their role in managing or mitigating them. The elimination of surprise provides for a clearer and more strategic approach to risk on the project. The divergence of perceptions between teams is a more difficult risk to quantify; after all it is just personal opinion, some of them may in fact be wrong, so why go to the bother of understanding it?

As we touched on earlier in this article, it is an individual's perception, or opinion, that drives their behaviour on the project. Therefore if key individuals or different members of the delivery team have diverging opinions about issue X they are unlikely to have a coherent approach to resolving or managing it. From our experience, this is the seed of a dispute.

Most of those working in construction are acutely aware of the moment on a project where a manageable issue turns into a dispute. The red mist descends, and personal and professional egos stand between swift consensual resolution and full-blown dispute. There is, however, a window of opportunity when a developing issue can be worked through without substantially affecting the project; provided that the problem is identified and dealt with early. It is at this moment where the delivery of professional dispute services offer almost incalculable value to clients and the issue can be resolved in tandem with the progression of the project.
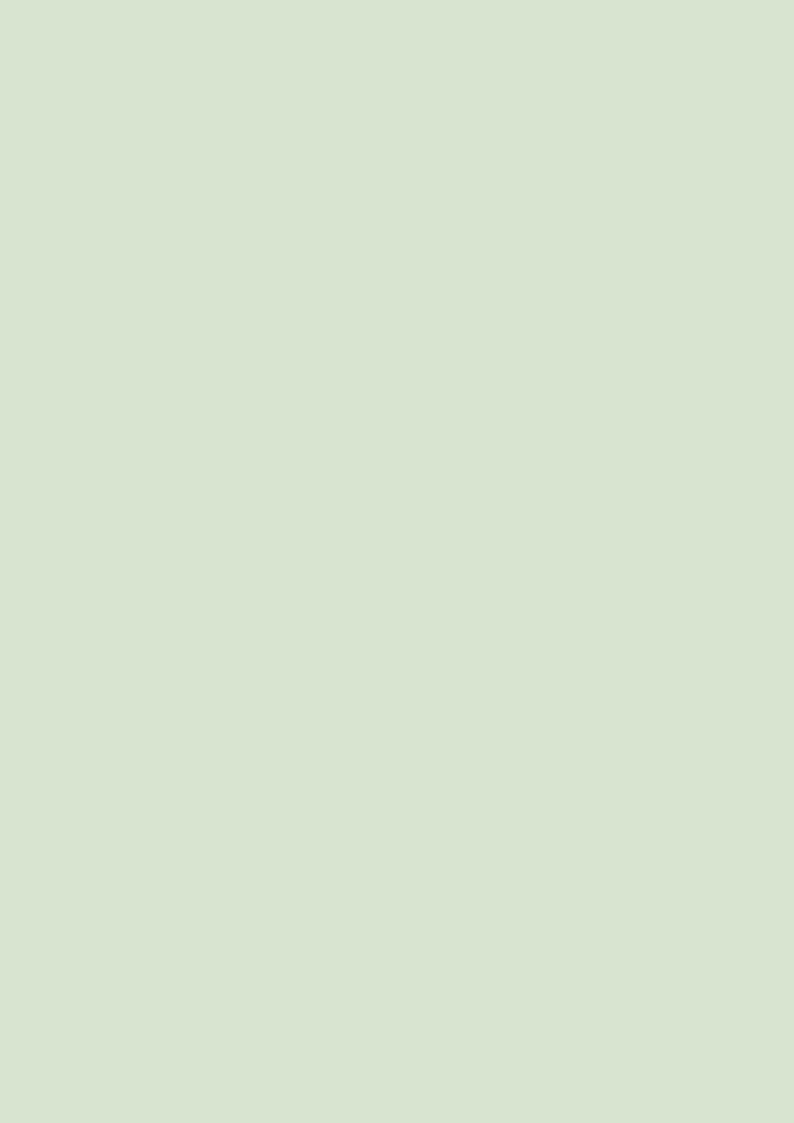
When articulating the value of effective horizon scanning on a project it is important to consider the real cost of escalating disputes. By taking the results of a horizon scanning exercise and effectively communicating them across the project delivery team you can increase engagement and actually decrease the likelihood of issues escalating into disputes or unmanaged risks damaging the project. The transparency of information and knowledge on the project also enables the ever-limited project resources to be effectively targeted at areas of the project most in need at the most appropriate time.

Summary

Our purpose in writing this paper is to engage the project community in a discussion on the value of early warning signals. As clients, project managers and contractors become more familiar with the challenges of complexity, we envisage a shift in risk management thinking where spotting early warning signals is a standard part of every project manager's toolkit. The more people that we can help experience the power of this simple but powerful process, the sooner this aspiration will become a reality.

As with so many aspects of project delivery however, the real challenge is to train our minds to recognise our own reactions to the signals we receive, and to accept the weak signal reported by others in or around the team. We do not underestimate the challenge this poses for many team leaders and project managers. Professional training encourages a focus on hard facts. As we progress into the 21st century however, the volatile, unpredictable, complex, and ambiguous nature of the project environment requires a broader perspective. The ability to use 'soft' data to inform decision-making may be the difference between project success and failure.

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