

## Avoiding the 'Tipping Point to Failure'



Delivering 'on the promise' to meet client and stakeholder expectations requires a project organisation that is capable of accomplishing the work!

Whilst this statement is obvious, most organisations remain blissfully unaware of Gladwell's tipping point<sup>1</sup>. The tipping point marks the boundary between linear changes and catastrophic change and unfortunately, it is impossible to predict where a tipping point may occur until after it has been reached.

The reason this is an important consideration for all project managers and project organisations is that leading up to the tipping point, increases in project complexity caused by factors such as an increase in the size of the project team, create predictable increases in difficulty and the situation is manageable. Once the tipping point is reached, the situation flips from predictable and manageable to chaotic and unmanageable within the current context. New paradigms are needed to first stabilise the situation, then recover. But there is no fixed point for this change; the tipping point is influenced by the capability of the performing organisation, the skills of its people, and the degree of complexity of the work they are asked to accomplish.

The degree of complexity associated with the work of a project increases exponentially as stakeholders, features, and requirements are added, and is influenced by a combination of its inherent size, technical difficulty, intensity, and the surrounding stakeholder relationships<sup>2</sup>. Each of these factors influences all of the others and in aggregate, can be described as the *complexity quotient*.

A performing organisation can manage a level of complexity based on its prior experience, maturity, supporting systems and the capability of the people managing the work. And as long as the *complexity quotient* is within the management capability of the organisation and the people it deploys, reasonably predictable outcomes can be expected and normal project control practices are likely to be effective.

Change any of the parameters to the point where the overall tipping point is reached and there is a sudden breakdown in control that causes a significant negative change in the likely project outcomes. Recovery is no longer a simple process of marginally increasing the resources deployed, what's needed is a massive change in the capability of resources.

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<sup>1</sup> For more on the **tipping point** see: [https://en.wikipedia.org/wiki/The\\_Tipping\\_Point](https://en.wikipedia.org/wiki/The_Tipping_Point)

<sup>2</sup> For more on the **four dimensions of overall complexity** see: [https://www.mosaicprojects.com.au/WhitePapers/WP1072\\_Project\\_Size.pdf](https://www.mosaicprojects.com.au/WhitePapers/WP1072_Project_Size.pdf)

The tipping point is not fixed for any organisation, by developing improved systems and acquiring experience the organisation can grow to be capable of managing larger, more complex projects. The challenge is to achieve this growth without running into a tipping point.

I'm not sure how you can predict this inherently unpredictable point but I suspect some key indicators include a rapid build up in sudden and erratic changes in schedule and cost variances and the project teams predictions of work that will be accomplished in the next 2 to 4 weeks become increasingly unreliable<sup>3</sup>. The recovery processes in this pre-tipping-point phase has to focus on rapidly reducing complexity which means slowing the work down and reducing pressures on the project team. This may seem counterintuitive but stabilising the situation has to occur first, only after normal management paradigms are working again can options to increase production be considered. The alternative is to push the project over the tipping point and into failure.

The management solution after the project has tipped is far more difficult to implement. The current team are not going to be able to extract themselves from the ensuing chaos without a major influx of capability. Effective recovery teams are highly capable groups, which means they are made up of highly experienced people who by definition are in extremely short supply. The alternative is to look at ways to reduce cost and complexity (usually by reducing the team size) and accepting the project will take far longer to complete.



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<sup>3</sup> For more on **project surveillance and early warning indicators** see:  
[https://www.mosaicprojects.com.au/WhitePapers/WP1080\\_Project\\_Reviews.pdf](https://www.mosaicprojects.com.au/WhitePapers/WP1080_Project_Reviews.pdf)

