The Problem of Latitude

By Nigel Lake

Will your long-term vision survive in a short-term world?

The world's early navigators faced one critical problem—the problem of longitude. Knowing how far north or south of the equator you were—your latitude—was relatively straightforward. By measuring the angle of the sun above the horizon at midday, and with the aid of standard tables, you could estimate your location precisely enough for long-distance maritime navigation, so long as you sailed due north or south.

Longitude, however, was an entirely different matter. To know how far east or west you had travelled, you needed precise timekeeping.

With improvements in the craft of clock-making—encouraged by huge prizes offered by a number of countries—the age-old problem of longitude was eventually solved by John Harrison in 1759. Almost overnight, long-distance travel and exploration was transformed. With accuracy of location, navigators could now sail direct routes and could create much more precise maritime charts.

After 200,000 years of evolution, by the early twentieth century humans truly understood their physical world. Nearly every corner of the planet, from the highest mountains to the frozen poles, had been visited and mapped. Today, every person with a smartphone can tell precisely where they are, call up a satellite photo, and within a few seconds access nearly every idea ever written down.

This thirst for precise, reliable navigation, and indeed for knowledge and certainty, is a parable for our times. For hundreds of years, education systems in most countries around the world have focused on teaching facts and theories. The smartest people—the polymaths—have been the people who knew the most. The people with the most experience have been revered as leaders in business and government. So it's no surprise that boards and cabinets are typically made up of people in their fifties and sixties.

Educators also teach history, so we can learn from our mistakes. And they teach how to solve problems by analysing facts and applying knowledge. Both are further illustrations of the societal obsession with knowledge and experience.

The lucky few have studied philosophy, and sought to understand the philosophical foundations on which truth and proof are built. Shockingly, as my recent paper Magic, Reason or Experience? explains, the business world does not have an epistemology that begins to match that of science—indeed, it does not have an epistemology at all.

The human race faces a fundamental challenge. Over the past 100 years, there have been amazing advances in the accessibility of accumulated knowledge and a dramatic transformation in how easily academics and inventors can collaborate. Together, these have driven the most profound period of innovation that the world has ever seen.

Change is nothing new, but continuing and accelerating change has driven the world to a critical inflection point. For the entire history of time, every creature has depended on instinct for its survival. Put simply, this has meant that doing things the same way has almost always proven to be safer than doing things differently. These instinctual preferences are deeply ingrained—just as every dog will walk around in circles before lying down to sleep, every human has an animal preference for the devil they know.

But this isn't the world that we live in anymore. The pace of change is now so great that sticking slavishly with the status quo is fast becoming the riskier option. The future is becoming inexorably more unpredictable, making long-term business and government planning more and more challenging. This is what I call the modern-day problem of latitude—the need to be able to embrace uncertainty and long-term opportunity completely in every major decision that is made.

Many of the most successful businesses of the past 20 years have embraced precisely this and have created trillions of dollars of value by welcoming change and innovation and by being prepared to fail. Meanwhile, the list of world-famous businesses that squandered a leading market position by remaining resolutely focused on the successes of yesterday grows longer year by year.

Similarly, knowledge itself is fast becoming an outdated concept. The entire sum of human learning can now be accessed in seconds more or less anywhere in the world. Knowing is not much of a differentiator anymore. For the present, knowing where to find information and how to test its reliability remains important. But even this will diminish over time as search algorithms become smarter and data sources improve the mechanisms they use to ensure their own accuracy.

As a result, the critical skill for students of today is to master a world where uncertainty is an intrinsic part of everyday life. Although the ramifications may not be as extreme as Raymond Kurzweil's 'singularity', technological development will result in change so rapid that it outpaces the ability of many people to keep up, let alone understand the implications.

The answers to challenges of this nature lie in statistics, and in the knowledge of programming languages needed to undertake advanced statistical analysis. Just as knowledge and understanding of the potential of IT marked out a new breed of leaders in the 1980s and 1990s, experience and judgement in the use of advanced statistical analysis will be the hallmark of the great leaders of the next couple of decades.

While this is easy to write, and the skills involved are not particularly challenging to learn, it is incredibly hard to implement in practice. Boards and management teams have a deep love for clear, definitive answers. If nature abhors a vacuum, then boards most definitely abhor uncertainty. They like to have a high degree of confidence in any projections of the future that are put forward, and they also have a deep trust in their own firsthand experience.

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As I have seen directly many times, most boards are terrified when confronted by objective measures that show the extensive uncertainty hiding behind their base case assumptions. Look at it this way: if an investment banker valued an acquisition target at $10 billion, with 90-per-cent confidence limits of $1 billion to $20 billion, most boards would think the advice was worthless. Yet the evidence from decades of value destruction from such transactions is very clear that many, many boards and advisers have been at least this wrong. Indeed, it turned out that HP was more or less 100-per-cent wrong on the $11-billion value ascribed to Autonomy, as was HSBC on its similarly fateful acquisition of Household International. As the UK's Telegraph commented at the time: "HSBC simply flushed $14.6bn down the pan." You can be confident this scenario was not in the board papers approving the acquisition.

More subtly, boards over-investigate where information is readily available, and tend to ignore risks that are harder to quantify. Nowhere is this truer than in relation to major infrastructure investments. Huge amounts of time and money are invested in developing estimates of construction cost. But no matter how thorough the analysis, typically the confidence limits around the likely out-turn cost will be no better than +/- 25 per cent at the point in time that an investment decision must be made.

In contrast, very often the revenue drivers will have a dramatically larger bearing on the financial success of the project. Positive scenarios may double the value, and negative scenarios may wipe it out completely. But it is notoriously hard to predict demand and pricing over the long term with any great accuracy. As a result, all too often the full range of inherent uncertainty is ignored and forecasts are reduced to a small number of scenarios. Time and again, large upside or downside possibilities are not uncovered until too late and over-leverage drives the business into administration.

There is a simple reason why so many businesses fail, whereas most bridges last for many decades. Engineers explore the effect of uncertainty, and use simulations to explore the end result. Businesses rely on scenario 'analysis', a financial finger in the wind of uncertainty.

Boards and management teams need a dramatic shift in mindset to get over this challenge. In many cases, this will require revolutionary change in leadership practices, and indeed in some organisations the leadership team itself will need wholesale renewal. Boards will need to appoint new members who are at home in a much faster-paced and uncertain world—arguably some of these people will need to be in their thirties or even twenties. And board and management cultures will have to allow those who bring different thinking—and a propensity to favour the view out of the front windscreen rather than the rear-view mirror—a chance to be properly heard.

Those that succeed in doing this will be navigating with radar. Those that do not will be sailing blind, towards a disaster of titanic proportions. ◦

About Nigel Lake
Nigel is CEO of global advisory firm Pottinger and an entrepreneur with a passion for diversity, innovation, environment, and action. He is author of *The Long Term Starts Tomorrow*. Follow him on Twitter at *@Nigel_Lake*

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