Adopting standards

Just over three centuries ago one Colonel Albert Borgard decided to rationalise the sizes of ship's guns in the British navy. His actual designs were all replaced a few years later, but his idea of constraining all gun sizes to a short list has remained in force ever since. This standardisation was one of the elements that ensured the Royal Navy would, within a hundred years, dominate all the world's oceans.

The adoption of the standard shipping container is a more recent maritime standard with at least as much impact. The first container ships started working in the 1950s, they faced resistance from ports and railway companies (who didn't want to invest in the specialised machinery) and from Trade Unions (who didn't want to lose the ship loading jobs). It has been estimated that the use of containers has reduced shipping time by 84% and overall costs by 35%. With the benefit of hindsight it is obvious that adopting these standards was, overwhelmingly, a good idea. Initially they both had to struggle against the entrenched way of doing things, it was clear to those with a vested interest in the old way of working that the new approach would disrupt their existing livelihood. Switching to a new standard can also impose new costs in unexpected ways. The adoption of standard shipping containers, for example, involved heavy investment in handling equipment and a different profile of land use. This led to the decline of some ports, like San Francisco, which were difficult to adapt, and to the growth of others, like nearby Oakland, which could be altered to fit the new methods.

In contrast with these innovations consider that once a standard is universally accepted it becomes the entrenched reality that all potential improvements are measured against. One of the most universal examples is the "Qwerty" keyboard layout. When it was originally developed in the late 19th century there were engineering justifications for the layout (how much those were really made necessary by the mechanical considerations is a matter of some dispute, but there were explanations for the layout that were at least plausible). A modern tablet does not even have the constraints of a physical keyboard, yet its "virtual keys" are still laid out in an arrangement dictated by mechanisms that were superseded almost 100 years ago. Over the years numerous studies have demonstrated alternate layouts which have marginal advantages, but none of those have ever managed to gain enough traction to displace the reigning convention.

So when your latest project defines a brand new data handing procedure remember that the main people affected will only change their well understood and finely honed activities once you have convinced them that **their** lives will be easier. Discuss the enormous benefit to the organisation with senior managers, the people affected have other concerns. Even once you have conclusively demonstrated that their workload will be reduced and their results will be better they might still reject your changes because they didn't believe your explanation.