Winning hearts and minds

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Regardless of which area of human factors or ergonomics we work in, communicating the value of change is becoming increasingly important, particularly when designing new products or systems. Invariably, most design projects have multiple stakeholders with a keen interest in ensuring the project success. In order to ensure early stakeholder engagement and acceptance, it is important that the value of the design change is meaningfully communicated.

The concept of 'storytelling' is currently receiving a lot of attention; it was a common theme at this year's IIT Design Research Conference. As many have shown, the power of the narrative is not to be underestimated. Short videos are a fantastic medium for providing an insight into another's life.

While in some cases, a narrative can be enough to provide a convincing case for change, there are situations where more evidence is required. Some projects require a quantitative business case to be made. Likewise, some stakeholders engage with hard facts more positively than stories, often reporting that they are 'ruled by the head, rather than the heart'.

The first stage of quantifying change is defining what to measure. These metrics will be project dependent, however, they typically include measures of efficacy, efficiency, safety, resilience and usability. Some values are harder to quantify than others, efficiency is arguably one of the easier metrics to quantify. A reductional approach to task analysis can be used to estimate time saving, likewise, the time taken to complete tasks with early prototypes used in a representative task can give a good indication. Other metrics, such as safety, can be more challenging to quantify, however, many industries have been attempting this for some time.

High-hazard industries, such as nuclear, again typically rely on a reductional approach, calculating failure probability for a range of components or tasks. These can then be combined using fault trees and Boolean logic to provide error assessments for different activities.

When it comes to user experience, we also have wide range of tools at our disposal; workload can be assessed, as can user performance and subjective ratings.

Many of the tools used to quantify performance can, on the face of it, seem complicated and overbearing. As a result, it can be tempting to shy away from their use, and opt to sell concepts on the back of other more qualitative techniques. The powerful story (the poignant quote or videoclip), accompanied by high quality visuals, may seem like the most cost effective approach. However, when applied at the right stage of the design process by skilled staff, the costs associated with more quantitative methods are often competitive.

The other factor to consider is that the tools and techniques used to quantify change are not just about convincing stakeholders. Generally, the real value lies much further upstream in the design process, in informing the most appropriate design. Early and continuous application of these tools can be used to identify and significantly reduce the risk of a product not meeting its expectations.

I am acutely aware that, for many readers, this will be considered as stating the obvious. However, the current trend for storytelling is gaining traction and a reliance on a qualitative narrative is, in some cases, starting to dominate. Ultimately, our experience is that an evidenced based-approach is paramount. Furthermore, this evidence is usually best provided with a combination of a narrative and a series of appropriate objective metrics.

As with most things, the exact mix will be depended on the project but our experience is that appealing to both the head and the heart of stakeholders ensures they remain engaged and informed throughout the development process.