

Mindset to Mindsight: A Critical NDE 4.0 Requirement

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NDE 4.0 represents several Digital Transformation aspects in the world for safety and quality assurance of high value assets. The two key words are ‘Digital’ referring to the means or enabling technologies and ‘Transformation’ referring to the result or the outcome. Twenty years ago, it was a simple act for us to buy a digital camera instead of a film camera, and then it got integrated with the phone. Over time, we became accustomed to sharing, tagging, comparing, building stories, and now selectively editing pictures using AI. It has transformed the photographic element of our personal and social lifestyles. Digitally native companies such as Amazon, Expedia, and Netflix have all had a profound impact on social fabric. We can see a similar trend in the professional sector, with the insertion of digital machines across the factory and enterprise software in offices. Legacy companies are being compelled by the market to adopt the digital way of running their business. A very large percentage of companies fail to transform digitally, even though they have access to the same suite of digital technologies. The reason is the human mind. Organizations exhibit significant inertia and friction when it comes to change. To overcome this, we need a shift from mindset to mindsight. A change in our thought process from what we are comfortable doing repetitively (set) to what is possible (sight) with a much higher value potential. We need to overcome a few mindset barriers. We need to shift from lean thinking to design thinking and innovation thinking. We need to blend projects for long term change into the portfolio of low hanging fruits. We need to separate spending from investment. We need to overcome fear of failure. We need to include the cost of procrastination in the ROI calculation. We need to include cognitive diversity, not just demographic headcounts. We need to embrace the likelihood of unknown ethical dilemma. We must put faith in the talent to deal with uncertainty, rather than kill the initiatives that don’t promise a predictable outcome. We must find ways to work with learning machines as partners. Uncertainty, obsolescence, and ambiguity need to be addressed as project management elements. As such, the transformation of the human mindset can be overwhelming as compared to insertion of digital technologies. And this non-technical aspect makes it critical to the success of an NDE4.0 program. I rest my case by saying, “We can buy technology; but we cannot buy mindsight.”