



# Enabling Digital Transformation through Learning Sciences

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**A**s Digital trends have pervaded every part of human life, individuals, organizations and governments have embraced the Digital Transformation (DT) phenomenon as a strategic priority. Creating a clear path for this change has become imperative for all.

However, the fact remains that the journey towards making DT a reality is a challenging one. Key among the difficulties is the paucity of people with requisite skills to enable Digital Transformation.

Business developments also point to a skill shortage in this area, meaning that it could be a major impediment to the Digitalization of

humanity and institutions. Research by the Technical University of Munich has shown that this skill gap may emerge as a deterrent to successful DT. According to its study, around 83 percent of respondents believe their organizations do not possess the right skills to roll out DT in their organizations. Around 73 percent meanwhile, feel that their employees do not have the necessary technology-oriented skills needed to be a part of the Digital workplace.

There is no doubt that for today's organizations, equipping their teams with these critical DT skills is a necessity and not an option. But how can these skills be acquired easily and cost effectively?

There is a way that could lead to DT nirvana and it is called

Learning Sciences (LS). To borrow a definition from Wikipedia, "LS is an interdisciplinary field that works to further scientific understanding of learning as well as to engage in the design and implementation of learning innovations, and the improvement of instructional methodologies". This might seem like a mouthful but all it means is that it is a deep dive into learning and the methods of knowledge dissemination.

Basically, LS investigates how learning works, and looks for ways in which the mechanisms of human learning can be supported to build skills efficiently, whether through new technology or more traditional means. LS brings together fields such as cognitive science,

educational psychology, computer science, anthropology, sociology information sciences, design studies, and instructional design to form a complete picture of how the mind's learning functions can be best utilized.

Learning Science will ultimately make possible the co-existence of bots (Robots) and humans in the modern, 21<sup>st</sup> century work environment. Many fear that bots will take over life as we know it owing to their ability to learn faster and better. They are concerned that bots will eventually outstrip humans, create a visible and tangible skills and learning gap that will only grow over time. A more likely scenario is that companies will bring their employees on par with the bots by helping them to learn more quickly and compete with Machine Learning. This will require them to invest in learning solutions and systems that facilitate and hasten skill building among their people while shrinking the time taken to gain knowledge and skills from decades to maybe even a year! Therefore, concepts such

as Engagement Sciences, Design Thinking, Artificial Intelligence (AI) and Machine Learning have now to become a part of the emerging Digital organization.

Learning Science can enable flexible, convenient 'anytime-anywhere' learning for a diverse workforce in an instant and on smart devices, including phones that people own and hold in their hands constantly.

Learning Sciences in fact, will play a significant role in altering the knowledge and skilling environment

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within organizations. Instead of promoting traditional online and offline learning, companies will deploy new age Learning tools such as Multi-Sensory, Real-time Training Simulators that will cater to every job profile. Thanks to Learning Sciences, employees will be able to leverage the trove of past knowledge that their companies have created as well as Big Data, and myriad training platforms that are available for their use.

On a broader scale, Learning Sciences will transform the entire learning cycle for everyone—right from the school to the advanced level. It will change the way children (who will one day lead the world) learn and assimilate knowledge. By catching them young and equipping them with Digital skills from the beginning itself, the primary and secondary education system will gear up for DT. At the higher levels too, Learning Sciences will assist in building industry-ready Digital professionals who are employable and hour-one ready as they enter the world of work and seamlessly fit into their cutting-edge offices. In this way Learning Sciences will catalyze the proliferation of Digital Transformation and spur the momentum of this revolution.

In order to make this vision of DT a reality, individuals, organizations, and government institutions will have to take responsibility to drive their own learning. They must commit themselves to 'going Digital' and actively harness the power of Learning Sciences to make a meaningful Digital Transformation and ensure that communities along with society as a whole have readied themselves for this monumental alteration. **ER**

