

Humans with Machines: New Delivery Paradigm For Business





Be it the steam engine, electric bulb, computer, or robot, machines have been at the core of industrialization evolution from the late 18th century through today's Industry 4.0. They have been there for us when volume and coverage mattered. Machines have delivered faster, cheaper, and better; consistently and precisely.

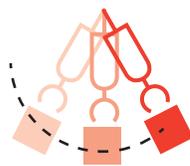
Improved Customer Experience

Human-machine collaboration is expected to drastically improve customer experience and therefore their delight. Customer experience can go up by notches when sophisticated, data-driven, self-service platforms like chatbots can reduce the number of human interaction contacts significantly. Cognitive call centers that employ virtual agents and virtual assistants enable human customer support agents to be smarter, better, and faster. Add predictive communication capability to this mix and you can rest assured that your online customers will not go elsewhere for want of better options.

However, this digital economy, accelerated by automation, robotics, and artificial intelligence, demands a delivery paradigm vastly different from the conventional one. This new machine first model for delivery will be hinged on human-machine collaboration. Human ingenuity, together with machine precision and power will, be the guiding force for elevated growth and success in this Business 4.0™ era.

This is something that we have always known. Healthcare industry has been one of the forerunners with robotic surgery. While the machine's precision greatly helps in conducting a flawless surgery, it is the human intellect that guides the robotic arm. Machines, by themselves, are not good at responses to unknown situations or making judgements. Here's how the human-machine collaboration can drive some business differentiators for an enterprise to succeed in its Business 4.0 transformation journey.

Increased Speed to Market



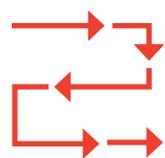
Human-machine collaboration on the production line has become more flexible, versatile, and therefore more productive. Today's robots are much more capable of learning tasks that they couldn't perform well earlier such as moving around objects placed chaotically and sorting out complex wiring issues in industries like aerospace. While humans can take on monitor and control tasks on the manufacturing floor, machines can be engaged for physically exerting tasks. This greatly reduces safety risks on the human workforce. Lacking in emotions, machines are best employed to

Better Mass Personalization

Machine learning algorithms, predictive analytics, and human creativity—a potent combination enterprises can leverage to achieve personalization to a segment of one individual across multiple channels. Coca Cola's launch of Cherry Sprite is a starting point of such personalization. Personalized apparel, footwear, personalized implants, and marketing automation, are some early applications of machines learning from humans for hyper personalization. For low risk appetite industries such as insurance, the human-machine collaboration has come in handy to satisfy their customers with personalized risk and loss estimation data.

perform iterative tasks, which humans find monotonous and lead to productivity loss. The plug and play feature of machines makes them user friendly and easy to deploy. The human-machine collaboration, therefore, is the best choice to improve a product's speed to market and realize exponential value as you progress in your Business 4.0 transformation journey.

Straight-Through Processing



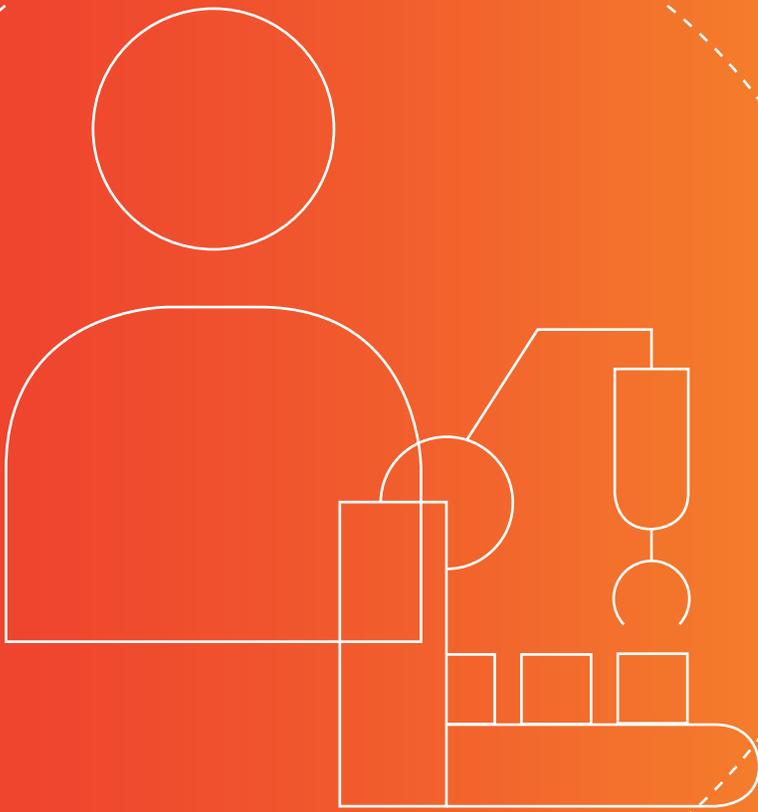
Human interaction at every step makes normal processing a long-winded one. In straight-through processing, an automated process completes the steps in a sequential manner thereby reducing any delays. This is another instance where regular, iterative transactions can be automated, with humans intervening only when there are exceptions required in a transaction. Besides eliminating manual errors, such machine-led transactions have shorter processing time and can create exponential value for enterprises.

New Business Models



According to one of our studies that involved about 835 business leaders from companies around the world, leading corporate investors in artificial intelligence (AI) outspent others by a factor of five, resulting in a 16% or more increase in revenue. Given such transformative benefits, it will be hard for enterprises to ignore AI. As human-machine collaboration evolves, businesses will have to rethink the way they operate. Traditional pricing models need to be thought anew in the context of multi-fold efficiency benefits offered by a human-machine synchronized automation service. The centaur model that takes into consideration the hybrid human-machine intelligence along with a business process, is bound to redefine business models. Automation, a millennial-dominated workforce, and evolving strategies such as crowd sourcing will disrupt workforce models as well in the near future.

Enterprises will do good to seek partners that can consult them on choosing the right business models. A right partner can help enterprises to harness the abundance in the ecosystem around them and lead them on their Business 4.0 transformation journey.



About Tata Consultancy Services (TCS)

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