

DIGITAL TRANSFORMATION – SOLUTION DESIGN FOR PROBLEM SOLVING



CMA (Dr.) Paritosh Basu
Senior Professor
NMIMS School of Business Management
Mumbai

Design Thinking for Solution

The axiom says: “The main thing is to keep the ‘Main Thing’ as the main thing.” It is up to the designer to decide what is the ‘Main Thing’ when she / he designs a solution for an identified problem of target stakeholders at the users’ space.

The more axiomatic point is the legacies that have brought humanity up to Industry 3.5, will not help to reach the pinnacle of Industry 4.0. It will be useful to first have a simple understanding about it “*Design thinking is an iterative process in which one seeks to understand the user, challenge, assumptions, and redefine problems in an attempt to identify alternative strategies and solutions that might not be instantly apparent with our individual level of understanding. ... provides a solution-based approach to solving problems. It is a way of thinking and working as well as a collection of hands on methods. Five steps for this are empathise, define, ideate, prototype and test.*”¹

Predictive analysts lead us to think that while it took about ten decades to transit from one industrial revolution to the next, reaching Industry 5.0 may not event take two decades. In that era the solutions will have to be such flexible that users will be enabled to get their specific and respective requirements

done through the provided solution. This would avoid people being dictated by the app like at present. One needs to keep in mind that ‘Generation Z’ does not like to follow any command and thus imagine what the next ‘Generation A’ would be². The solution designer must have to be steps ahead of his / her creative best. Strong conviction of the present author is that the ultimate directional guidance for design thinking will come from the imperatives for upholding the esteem values of humanity.

In present market-driven economy ever-changing dimensions and risk intensities of Volatile Uncertain, Complex and Ambiguous elements of global business ecosystem are day by day becoming more unpredictable. Genetical evolution in the dimensions of VUCA and their anti-chameleon hues are forcing digital scientists to think differently as legacy mandates will not help.

The overriding imperative of a digitally transformed organisation is that it must be effectively functioning in a Physical-Digital-Physical Loop (PDP Loop). It must reverse map business strategies from market to entity, and then internally plan for executing action initiatives through a digital platforms for implementation back in the target marketplace. The same must also be applied for designing solution to be used by common mass. A research paper published by Boston

Consulting Group predicts that by 2030 industry sectors, which rely on advanced digital technology, could account for nearly USD 9 trillion in output. One can imagine how advanced and capable those digitally transformed solutions would be in a multi stakeholder environment across sovereign boundaries, as compared to traditional and legacy ones.

Recent Digital Solutions

Blockchain

IBM has just come out with a solution which will revolutionise crowd funding through a blockchain-based platform³. This is what India needs for people to participate in community development initiatives. Such a platform will help collectively funding and owning capital assets for productive generation of tangible outputs and financing working capital requirements. Farmers, self-help groups, women entrepreneurs, village artisans and MSMEs will immensely be benefitted for their livelihood without resorting to bank loans. Blockchain will not only ensure end to end administration of funds, but also resolve issues of ownership. If an existing participant wants to disassociate, and another wants to join in, the system will ensure smooth transition with proportionate ownership. Business entities, which are interested in trading their outputs, may contribute for initial fund requirements along with the said participants. That contribution will be amortised through purchase of outputs.

JP Morgan has come out with a live blockchain-based Interbank Information Network⁴. INN is a platform specifically designed to provide secure exchange information to banks which are engaged in cross border payments. Objective of INN is to help meeting challenges faced by banks in resolving frictions and risks created through involvement of multiple parties in the process. Besides mitigating risks, it would reduce cost, improve speed and reliability.

Electromyography

Human brain and machine interface seem to be no more a distant reality. Very recently facebook has announced acquisition of a neural interface startup⁵. Its founders are designing a solution that will enable a human being to control a computing machine only by the user's thoughts. This solution is based on use of an armband which would work as an electromyographer. Its signals will be captured and passed on to the computer through a digital solution.

AI and ML

Risk averseness nature of every single human being have led digital scientists to design many solutions. Recently a group of US scientists of MIT has designed a solution⁶, by which by reading ECG signals just for 15 minutes can place the patient in different cardiovascular risk groups. After such diagnostic analysis doctors will be able put the patient out of impending dangers of sufferings, and may be eventually the life, by their proactive and the most appropriate treatment.

It is said that well hired is half done for strategic human capital management. Now AI is facilitating this process also. Unilever⁷ has started using AI and ML based digital solutions for their recruitment process. This has helped them saving 70,000 executive hours for interviewing candidates, besides hiring the right candidate.

Sensors and Cognitive Technology

Fighting hunger by minimisation of wastage of cooked and ready to eat food items is a long-felt need. The present author is of his ideated view that AI, with the help of sensors, IoTs and cognitive technology can minimise such food wastage. A solution can be designed to identify wasted food articles, generate data, and through analytics give enough information with specific patterns that can help management of hotels and restaurants managers to take corrective measures. Even one can identify the persons who waste food and penalties can be imposed on them.

Success in designing such ground-breaking solutions can be achieved by any startup or an existing organisation only if those entities are by themselves not designed for managing only success. Those must also be capable of absorbing failures both in psychometric and monetary terms. **MA**

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Paritosh.Basu@sbm.nmims.edu